CON: 12-15
Doc # 9827

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

SEP 07 2006

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Tom Francis
City of Ottumwa
14802 Terminal Street
Ottumwa, Iowa 52501

Dear Mr. Francis:

RE: Ottumwa (ex) Navy Air Station
EPA ID #IAN000703254
ASR No. 3047

Enclosed are copies of Sample Collection Field Sheets and Results of Sample Analysis reports for environmental samples collected from the City of Ottumwa – Airport property in June 2006 by the U.S. Environmental Protection Agency (EPA). This sampling activity is a continuation of the previous investigation conducted for the above referenced Superfund site.

Sample numbers -1, -2, -3, -7, -8, -9, -9FD, -11, -12, -13, -14, -15, -16, -17, -18, and -19 are soil samples. Sample numbers -20, -21FB, -22, -23, -24, -24FD, and -27FB are sediment samples. Sample numbers -107FB, -207FB, -208FB, -301, -301FD, and -303 are surface water samples. The analytical results from the soil samples (-14 and -16) indicate that the concentration of arsenic (a metal) exceeded the Preliminary Remediation Goals (PRGs) for residential soils in some of the samples.

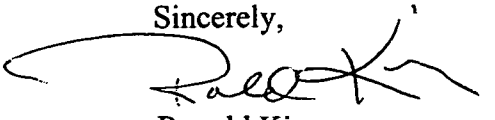
The PRGs role in the site "screening" is to help identify areas, contaminants, and conditions that do not require further federal attention at a particular site. Generally, at sites where contaminant concentrations fall below PRGs, no further action or study is warranted under the Superfund program, so long as the exposure assumptions at a site match those taken into account by the PRG calculations. Chemical concentrations above the PRG would not automatically designate a site as "dirty" or trigger a response action. However, exceeding a PRG suggests that further evaluation of the potential risks posed by the site contamination maybe appropriate.

Any questions regarding the public health significance of the results should be directed to Charles Barton at the Iowa Department of Health at 515-281-6881.

This information is forwarded to you in accordance with the provisions of Section 3007(a) of the Resource Conservation and Recovery Act of 1976, as amended; and Section 104(e)(4)(B) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended. This letter is intended to transmit the data received from the laboratory and not to provide a full or detailed analysis of the data.

Thank you for your cooperation with this investigation. If you have questions about the past or future investigation activities, or any other questions, please contact me at 913-551-7568.

Sincerely,



Ronald King
Enforcement/Fund Removal Branch
Superfund Division

Enclosures:

cc: Charles Barton, IDH - w/enclosures
Cal Lundberg, IDEQ - w/enclosures

Ottumwa (EX) NAS – PA Sampling				
Sample Number	**Location**	**Media**	**Other**	**Results**
3047-1	City of Ottumwa – Airport 14802 Terminal Street Ottumwa, IA 52501	Soil SB-1	0.5'- 2'	Mercury 0.059 Aluminum 11100 Barium 205 Calcium 2860 Chromium 13.3 Cobalt 4.69 Copper 15.0 Lead 14.0 Magnesium 2360 Nickel 11.1 Sodium 89.6 Vanadium 28.9
3047-2	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	Soil SB-1	12' – 14'	Mercury 0.047 Aluminum 9560 Barium 189 Calcium 3660 Chromium 13.5 Cobalt 2.59 Copper 13.5 Iron 8520 Lead 8.87 Magnesium 3080 Manganese 51.8 Nickel 9.94 Sodium 111 Vanadium 11.5 Zinc 42.8
3047-3	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	Soil SB-2	0.5' - 2'	Mercury 0.053 Aluminum 14700 Barium 216 Calcium 3220 Chromium 17.2 Cobalt 3.09 Copper 15.6 Iron 20200 Lead 8.53 Magnesium 3610 Manganese 132 Nickel 17.5 Selenium 11.2 Sodium 68.2 Vanadium 29.5 Zinc 35.3
3047-7	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	Soil SB-6	0.5' – 2' Alfalfa field east-southeast of Bottling Plant	Mercury 0.069 Aluminum 16500 Barium 215 Calcium 4180 Chromium 18.0 Cobalt 4.41 Copper 16.5 Iron 19600 Lead 11.7 Magnesium 4190 Manganese 253 Nickel 13.8 Sodium 63.0 Vanadium 29.4 Zinc 46.5
3047-8	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	Soil SB-6	12' – 14' Alfalfa field east-southeast of Bottling Plant	Mercury 0.045 Aluminum 10300 Antimony 2.01 Barium 262 Calcium 4770 Chromium 15.6 Cobalt 12.6

				Copper 20.5 Iron 21900 Lead 19.1 Magnesium 3990 Manganese 1260 Nickel 30.8 Sodium 120 Vanadium 33.1 Zinc 46.1 Acetone 38
3047-9	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	Soil SB-7	0.5 – 2' Between former RR grade & 1st Ave NW of 5th Street	Mercury 0.106 Aluminum 17800 Barium 311 Beryllium 1.26 Calcium 4380 Chromium 17.4 Cobalt 14.7 Copper 21.1 Iron 25100 Lead 17.8 Magnesium 4350 Manganese 808 Nickel 27.8 Sodium 65.7 Vanadium 33.8 Zinc 54.0
3047-9FD	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	Soil SB-7	0.5 - 2' Field Duplicate Between former RR grade & 1st Ave NW of 5th Street	Mercury 0.047 Aluminum 12500 Barium 206 Calcium 4080 Chromium 13.8 Cobalt 5.89 Copper 13.7 Iron 16400 Lead 11.1 Magnesium 3190 Manganese 361 Nickel 12.3 Sodium 59.0 Vanadium 29.5 Zinc 40.2
3047-11	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	Soil SB-7	12 – 14'	Mercury 0.034 Aluminum 18600 Barium 159 Calcium 3780 Chromium 16.6 Cobalt 2.68 Copper 8.45 Iron 16500 Lead 14.8 Magnesium 2710 Manganese 36.2 Nickel 6.30 Sodium 68.1 Vanadium 46.7 Zinc 10.7
3047-12	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	Soil SB-8	0.5 – 2' South of Bottling Plant on city land	Mercury 0.040 Aluminum 12200 Barium 231 Calcium 5490 Chromium 14.1 Cobalt 4.94 Copper 12.5 Iron 12700 Lead 12.1 Magnesium 2690 Manganese 142 Nickel 11.7 Sodium 186 Vanadium 22.6

				Zinc 27.2
3047-13	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	SB-8	12 – 14' City land south of Bottling Plant	Mercury 0.017 Aluminum 12500 Barium 159 Beryllium 1.06 Calcium 4590 Chromium 11.1 Cobalt 8.29 Copper 9.98 Iron 9700 Lead 31.3 Magnesium 2260 Manganese 292 Nickel 7.39 Sodium 73.9 Vanadium 30.5 Zinc 10.5
3047-14	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	SB-9	0.5 – 2' Easement at N of intersection of 2nd Ave & 8th Street	Mercury 0.044 Aluminum 15500 **Arsenic 10.3** Barium 273 Beryllium 1.26 Calcium 9220 Chromium 18.6 Cobalt 12.8 Copper 26.0 Iron 25200 Lead 23.3 Magnesium 5020 Manganese 1140 Nickel 30.3 Sodium 108 Vanadium 40.6 Zinc 49.4
3047-15	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	SB-9	10 – 12' 2nd & 8th St. north easement south of former Motor Vehicle Bldg.	Mercury 0.022 Aluminum 13600 Barium 259 Beryllium 1.05 Calcium 3740 Chromium 11.1 Cobalt 8.68 Copper 7.18 Iron 36400 Lead 13.7 Magnesium 2230 Manganese 1250 Nickel 9.14 Selenium 10.4 Sodium 59.2 Vanadium 53.3 Acetone 1700 2-Butanone 5800
3047-16	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	SB-10	0.5 – 2' Across SE of terminal street	Mercury 0.052 Aluminum 13200 **Arsenic 11.3** Barium 235 Beryllium 1.26 Calcium 6120 Chromium 16.2 Cobalt 18.8 Copper 27.7 Iron 21200 Lead 23.0 Magnesium 4600 Manganese 697 Nickel 35.7 Sodium 87.8 Vanadium 37.3 Zinc 50.3
3047-17	City of Ottumwa – Airport, Tom Francis	SB-10	12 – 14'	Mercury 0.028

	14802 Terminal Street Ottumwa, IA 52501		Across terminal street from terminal bldg.	Aluminum 13000 Arsenic 6.96 Barium 215 Beryllium 1.07 Calcium 10500 Chromium 12.7 Cobalt 12.6 Copper 11.1 Iron 22900 Lead 15.7 Magnesium 4920 Manganese 904 Nickel 14.3 Selenium 10.4 Sodium 89.4 Vanadium 62.1 Zinc 18.7
3047-18	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	SB-11	0.5 – 2' Bkgrd location N of terminal Ave 200ft west of Airport Road (50' w of sign for airport	Mercury 0.033 Aluminum 14100 Arsenic 9.90 Barium 247 Beryllium 1.12 Calcium 10100 Chromium 15.6 Cobalt 19.5 Copper 19.4 Iron 21100 Lead 37.9 Magnesium 3270 Manganese 1380 Nickel 22.3 Sodium 77.9 Vanadium 38.6 Zinc 77.3 2-Butanone 14 Aceton 160
3047-19	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	Soil Backgroun d	12 – 14' Bkgrd. Location N of terminal Ave 12-14' W of airport Rd	Mercury 0.031 Aluminum 10500 Barium 211 Calcium 4110 Chromium 10.9 Cobalt 23.1 Copper 12.3 Iron 16300 Lead 12.7 Magnesium 2550 Manganese 1450 Nickel 15.3 Sodium 132 Vanadium 36.5 Zinc 22.1
3047-20	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	SED-4	Downstream SED 1&2	Mercury 0.027 Aluminum 10700 Barium 188 Calcium 9840 Cobalt 7.25 Copper 12.9 Lead 16.5 Manganese 749 Nickel 13.5 Vanadium 29.6 Zinc 38.9
3047-21FB	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	OA-1 VOA/TPH	Lab prepared trip blank	
3047-22	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	SED-1	Sed location from drainage NNE of treatment plant	Mercury 0.028 Aluminum 13200 Barium 180 Calcium 7510 Cobalt 6.52

				Copper 14.2 Iron 17800 Lead 17.4 Magnesium 2880 Manganese 580 Nickel 14.8 Selenium 1190 Sodium 85.9 Vanadium 32.0 Zinc 53.2
3047-23	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	SED -2	Bkgrd NNW of Treatment plant	Mercury 0.027 Aluminum 10800 Barium 173 Calcium 4610 Cobalt 3.06 Copper 12.6 Iron 13100 Lead 12.4 Magnesium 2600 Manganese 253 Nickel 12.4 Potassium 862 Sodium 104 Vanadium 24.1 Zinc 39.1
3047-24	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	SED-3	Drainage south of airport	Mercury 0.078 Aluminum 7210 Barium 168 Calcium 31400 Cobalt 11.6 Copper 29.6 Iron 15700 Lead 165 Magnesium 3840 Manganese 1000 Nickel 18.3 Potassium 606 Selenium 16.5 Sodium 145 Vanadium 21.3 Zinc 162 Acetone 8.8
3047- 24FD	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	SED-3	Field Duplicate of sample 24 Drainage south of airport	Mercury 0.086 Aluminum 5250 Barium 96.6 Cadmium 2.32 Calcium 50400 Cobalt 6.47 Copper 31.5 Iron 19200 Lead 51.8 Magnesium 3820 Manganese 450 Nickel 13.1 Potassium 496 Selenium 13.0 Sodium 87.9 Vanadium 13.9 Zinc 188 Acetone 6.3
3047-27FB		SED	Lab prepared field blank	Acetone 28
3047- 107FB		DW	Lab prepare field blank	
3047- 207FB		DW VOA/TPH	DW Field Blank	Nitrobenzene 1.2 Bromochloromethane 0.69 Chloroform 1.2 Methylene Chloride 1.6
3047-		SW-3	Lab prepared trip	

208FB			blank	
3047-301	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	SW-3	South drainage from airport	Mercury 0.20 Aluminum 156 Barium 178 Calcium 96.1 Iron 296 Magnesium 31.7 Manganese 90.3 Sodium 17.1
3047-301FD	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	SW-3	South drainage from airport	Mercury 0.20 Aluminum 160 Barium 175 Calcium 94.3 Iron 292 Magnesium 31.1 Manganese 88.8 Sodium 16.7
3047-303	City of Ottumwa – Airport, Tom Francis 14802 Terminal Street Ottumwa, IA 52501	SW-4	Stream drainage north of airport downstream of SED 1 & SED2 on Airport Road	Mercury 0.20 Aluminum 7410 Barium 299 Calcium 86.7 Copper 5.25 Iron 7410 Magnesium 28.6 Maganese 649 Sodium 15.1 Titanium 107 Vanadium 20.6 Zinc 30.5

TABLE 1

SOURCE SOIL SAMPLE SUMMARY
OTTUMWA (EX) NAS SITE, OTTUMWA, IOWA
JUNE 2006

EPA Sample Number	Location	Borehole Number	Depth (ft bgs)	Sample Date	Sample Time
3047-1	Near entrance to sewage treatment plant	SB-1	0.5 – 2	6/12/06	15:15
3047-2			12 – 14	6/12/06	15:50
3047-3	Debris burial area	SB-2	0.5 – 2	6/12/06	16:45
3047-4	North end of ammunition/rifle range area	SB-3	0.5 – 2	6/12/06	18:25
3047-5	South end of ammunition/rifle range area	SB-4	0.5 – 2	6/13/06	7:50
3047-6	Skeet range	SB-5	0.5 – 2	6/13/06	8:10
3047-7	City-owned alfalfa field east-southeast of bottling plant and southwest of warehouse	SB-6	0.5 – 2	6/13/06	10:25
3047-8			12 – 14	6/13/06	10:40
3047-9	Between former rail spur and 1st Avenue, northwest of 5th Street	SB-7	0.5 – 2	6/13/06	12:50
3047-9FD			0.5 – 2	6/13/06	12:50
3047-11			12 – 14	6/13/06	13:15
3047-12	City easement southwest of bottling plant	SB-8	0.5 – 2	6/13/06	14:20
3047-13			12 – 14	6/13/06	14:40
3047-14	Easement north of intersection of 2nd Avenue and 8th Street by former Motor Repair	SB-9	0.5 – 2	6/13/06	15:20
3047-15			10 – 12	6/13/06	15:40
3047-16	Southeast of Airport Terminal, across Terminal Street	SB-10	0.5 – 2	6/13/06	16:30
3047-17			12 – 14	6/13/06	17:00
3047-18	Background location; north of Terminal Avenue near entrance sign from Airport Road	SB-11	0.5 – 2	6/13/06	17:45
3047-19			12 – 14	6/13/06	18:05

Notes:

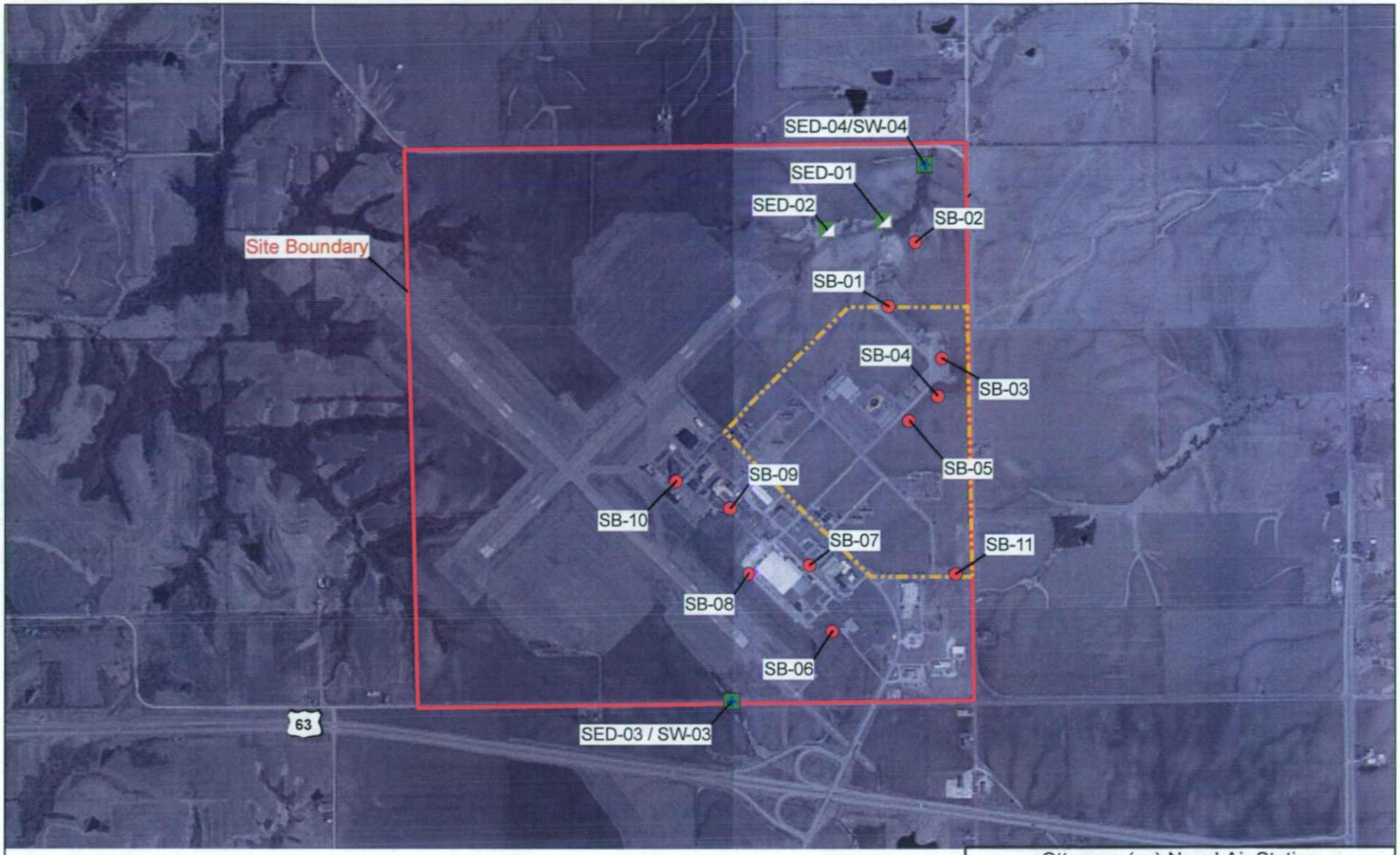
EPA U.S. Environmental Protection Agency ft bgs Feet
below ground surface
FD Field duplicate SB Soil boring

Sediment samples

3047-22 SED-1 (Northern Drainage)	3047-24 SED-3 (South-flowing Stream)	3047-24FD SED-3 (South-flowing Stream)	3047-20 SED-4 (North-flowing Stream)	3047-23 SED-2 (BKG)

Surface Water Samples

2986-301 SW-3 (South-flowing Stream)	2986-301FD SW-3 (South-flowing Stream)	2986-303 SW-4 (North-flowing Stream)



Legend

- Soil boring sample location
- Sediment sample location
- Surface water and sediment sample location
- Indian Hills Community College Property

N

0 1,000 2,000

Scale in Feet

Source: Ottumwa County, Iowa NW and NE DOQQ, 2002 CIR Imagery

Ottumwa (ex) Naval Air Station
Ottumwa, Iowa

Figure 4
Sample Location Map

Tetra Tech EM Inc.

Date: 06/20/06 Drawn By: Roger Stull Project No: I9004.L06.0002.006.007

O:\G\9004\0002\006\007\projects\Figure2New.mxd

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-1
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-1. This sample was collected on 06/12/2006 at the location described as: Soil sample (SB-1, 0.5-2'). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-1 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.059	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	Approximately 11100	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	Less Than 5	Milligrams per Kilogram

Sample: 3047-1
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	205	Milligrams per Kilogram
Beryllium	Less Than 1	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	2860	Milligrams per Kilogram
Chromium	13.3	Milligrams per Kilogram
Cobalt	4.69	Milligrams per Kilogram
Copper	15.0	Milligrams per Kilogram
Iron	Approximately 16300	Milligrams per Kilogram
Lead	14.0	Milligrams per Kilogram
Magnesium	2360	Milligrams per Kilogram
Manganese	Approximately 181	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	11.1	Milligrams per Kilogram
Potassium	Approximately 686	Milligrams per Kilogram
Selenium	Less Than 10	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	89.6	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	28.9	Milligrams per Kilogram
Zinc	Approximately 28.8	Milligrams per Kilogram

Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than 23	Micrograms per Kilogram
Aroclor 1221	Less Than 23	Micrograms per Kilogram
Aroclor 1232	Less Than 23	Micrograms per Kilogram
Aroclor 1242	Less Than 23	Micrograms per Kilogram
Aroclor 1248	Less Than 23	Micrograms per Kilogram
Aroclor 1254	Less Than 12	Micrograms per Kilogram
Aroclor 1260	Less Than 12	Micrograms per Kilogram

Percent Solid

Solids, percent	82.9	Percent

Perchlorate in Soil by Ion Chromatography (IC)

Perchlorate	Less Than 0.020	Milligrams per Kilogram

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame

Sample: 3047-1
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	180	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 58	Micrograms per Kilogram
Volatile Organic Compounds in Soil at Low Levels by Closed-System Purge-and-Trap GC/MS.		
Acetone	Less Than 31	Micrograms per Kilogram
Benzene	Less Than 2.7	Micrograms per Kilogram
Bromodichloromethane	Less Than 2.7	Micrograms per Kilogram
Bromoform	Less Than 2.7	Micrograms per Kilogram
Bromomethane	Less Than 2.7	Micrograms per Kilogram
2-Butanone	Less Than 2.7	Micrograms per Kilogram
Carbon Disulfide	Less Than 2.7	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 2.7	Micrograms per Kilogram
Chlorobenzene	Less Than 2.7	Micrograms per Kilogram
Chloroethane	Less Than 2.7	Micrograms per Kilogram
Chloroform	Less Than 2.7	Micrograms per Kilogram
Chloromethane	Less Than 2.7	Micrograms per Kilogram
Cyclohexane	Less Than 2.7	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 2.7	Micrograms per Kilogram
Dibromochloromethane	Less Than 2.7	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 2.7	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 2.7	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 2.7	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 2.7	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 2.7	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 2.7	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 2.7	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 2.7	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 2.7	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 2.7	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 2.7	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 2.7	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 2.7	Micrograms per Kilogram
Ethyl Benzene	Less Than 2.7	Micrograms per Kilogram

Sample: 3047-1
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
2-Hexanone	Less Than 2.7	Micrograms per Kilogram
Isopropylbenzene	Less Than 2.7	Micrograms per Kilogram
Methyl Acetate	Less Than 2.7	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 5.4	Micrograms per Kilogram
Methylcyclohexane	Less Than 2.7	Micrograms per Kilogram
Methylene Chloride	Less Than 2.7	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 2.7	Micrograms per Kilogram
Naphthalene	Less Than 5.4	Micrograms per Kilogram
Styrene	Less Than 2.7	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 2.7	Micrograms per Kilogram
Tetrachloroethene	Less Than 2.7	Micrograms per Kilogram
Toluene	Less Than 2.7	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 2.7	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 2.7	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 2.7	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 2.7	Micrograms per Kilogram
Trichloroethene	Less Than 2.7	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 2.7	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 2.7	Micrograms per Kilogram
Vinyl Chloride	Less Than 2.7	Micrograms per Kilogram
m and/or p-Xylene	Less Than 2.7	Micrograms per Kilogram
o-Xylene	Less Than 2.7	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-2
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-2. This sample was collected on 06/12/2006 at the location described as: Soil sample (SB-1, 12-14'). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-2 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.047	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	9560	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	Less Than 5	Milligrams per Kilogram

Sample: 3047-2
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	189	Milligrams per Kilogram
Beryllium	Less Than 1	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	3660	Milligrams per Kilogram
Chromium	13.5	Milligrams per Kilogram
Cobalt	2.59	Milligrams per Kilogram
Copper	13.5	Milligrams per Kilogram
Iron	8520	Milligrams per Kilogram
Lead	8.87	Milligrams per Kilogram
Magnesium	3080	Milligrams per Kilogram
Manganese	51.8	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	9.94	Milligrams per Kilogram
Potassium	Approximately 789	Milligrams per Kilogram
Selenium	Less Than 10	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	111	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	11.5	Milligrams per Kilogram
Zinc	42.8	Milligrams per Kilogram

Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than 22	Micrograms per Kilogram
Aroclor 1221	Less Than 22	Micrograms per Kilogram
Aroclor 1232	Less Than 22	Micrograms per Kilogram
Aroclor 1242	Less Than 22	Micrograms per Kilogram
Aroclor 1248	Less Than 22	Micrograms per Kilogram
Aroclor 1254	Less Than 11	Micrograms per Kilogram
Aroclor 1260	Less Than 11	Micrograms per Kilogram

Percent Solid

Solids, percent	81.7	Percent

Perchlorate in Soil by Ion Chromatography (IC)

Perchlorate	Less Than 0.020	Milligrams per Kilogram

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame

Sample: 3047-2
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	32	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 60	Micrograms per Kilogram
Volatile Organic Compounds in Soil at Low Levels by Closed-System Purge-and-Trap GC/MS.		
Acetone	Less Than 6.7	Micrograms per Kilogram
Benzene	Less Than 2.8	Micrograms per Kilogram
Bromodichloromethane	Less Than 2.8	Micrograms per Kilogram
Bromoform	Less Than 2.8	Micrograms per Kilogram
Bromomethane	Less Than 2.8	Micrograms per Kilogram
2-Butanone	Less Than 2.8	Micrograms per Kilogram
Carbon Disulfide	Less Than 2.8	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 2.8	Micrograms per Kilogram
Chlorobenzene	Less Than 2.8	Micrograms per Kilogram
Chloroethane	Less Than 2.8	Micrograms per Kilogram
Chloroform	Less Than 2.8	Micrograms per Kilogram
Chloromethane	Less Than 2.8	Micrograms per Kilogram
Cyclohexane	Less Than 2.8	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 2.8	Micrograms per Kilogram
Dibromochloromethane	Less Than 2.8	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 2.8	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 2.8	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 2.8	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 2.8	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 2.8	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 2.8	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 2.8	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 2.8	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 2.8	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 2.8	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 2.8	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 2.8	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 2.8	Micrograms per Kilogram
Ethyl Benzene	Less Than 2.8	Micrograms per Kilogram

Sample: 3047-2
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
2-Hexanone	Less Than 2.8	Micrograms per Kilogram
Isopropylbenzene	Less Than 2.8	Micrograms per Kilogram
Methyl Acetate	Less Than 2.8	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 5.6	Micrograms per Kilogram
Methylcyclohexane	Less Than 2.8	Micrograms per Kilogram
Methylene Chloride	Less Than 2.8	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 2.8	Micrograms per Kilogram
Naphthalene	Less Than 5.6	Micrograms per Kilogram
Styrene	Less Than 2.8	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 2.8	Micrograms per Kilogram
Tetrachloroethene	Less Than 2.8	Micrograms per Kilogram
Toluene	Less Than 2.8	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 2.8	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 2.8	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 2.8	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 2.8	Micrograms per Kilogram
Trichloroethene	Less Than 2.8	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 2.8	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 2.8	Micrograms per Kilogram
Vinyl Chloride	Less Than 2.8	Micrograms per Kilogram
m and/or p-Xylene	Less Than 2.8	Micrograms per Kilogram
o-Xylene	Less Than 2.8	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-3
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-3. This sample was collected on 06/12/2006 at the location described as: Soil sample (SB-2, 0.5-2'). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-3 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.053	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	14,700	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	Less Than 5	Milligrams per Kilogram

Sample: 3047-3
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	216	Milligrams per Kilogram
Beryllium	Less Than 1	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	3220	Milligrams per Kilogram
Chromium	17.2	Milligrams per Kilogram
Cobalt	3.09	Milligrams per Kilogram
Copper	15.6	Milligrams per Kilogram
Iron	20200	Milligrams per Kilogram
Lead	8.53	Milligrams per Kilogram
Magnesium	3610	Milligrams per Kilogram
Manganese	132	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	17.5	Milligrams per Kilogram
Potassium	Approximately 763	Milligrams per Kilogram
Selenium	11.2	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	68.2	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	29.5	Milligrams per Kilogram
Zinc	35.3	Milligrams per Kilogram

Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than 25	Micrograms per Kilogram
Aroclor 1221	Less Than 25	Micrograms per Kilogram
Aroclor 1232	Less Than 25	Micrograms per Kilogram
Aroclor 1242	Less Than 25	Micrograms per Kilogram
Aroclor 1248	Less Than 25	Micrograms per Kilogram
Aroclor 1254	Less Than 12	Micrograms per Kilogram
Aroclor 1260	Less Than 12	Micrograms per Kilogram

Percent Solid

Solids, percent	80.4	Percent

Perchlorate in Soil by Ion Chromatography (IC)

Perchlorate	Less Than 0.020	Milligrams per Kilogram

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame

Sample: 3047-3
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	20	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 63	Micrograms per Kilogram
Volatile Organic Compounds in Soil at Low Levels by Closed-System Purge-and-Trap GC/MS.		
Acetone	35	Micrograms per Kilogram
Benzene	Less Than 5.9	Micrograms per Kilogram
Bromodichloromethane	Less Than 5.9	Micrograms per Kilogram
Bromoform	Less Than 5.9	Micrograms per Kilogram
Bromomethane	Less Than 5.9	Micrograms per Kilogram
2-Butanone	Less Than 5.9	Micrograms per Kilogram
Carbon Disulfide	Less Than 5.9	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 5.9	Micrograms per Kilogram
Chlorobenzene	Less Than 5.9	Micrograms per Kilogram
Chloroethane	Less Than 5.9	Micrograms per Kilogram
Chloroform	Less Than 5.9	Micrograms per Kilogram
Chloromethane	Less Than 5.9	Micrograms per Kilogram
Cyclohexane	Less Than 5.9	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 5.9	Micrograms per Kilogram
Dibromochloromethane	Less Than 5.9	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 5.9	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 5.9	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 5.9	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 5.9	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 5.9	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 5.9	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 5.9	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 5.9	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 5.9	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 5.9	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 5.9	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 5.9	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 5.9	Micrograms per Kilogram
Ethyl Benzene	Less Than 5.9	Micrograms per Kilogram

Sample: 3047-3
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
2-Hexanone	Less Than 5.9	Micrograms per Kilogram
Isopropylbenzene	Less Than 5.9	Micrograms per Kilogram
Methyl Acetate	Less Than 5.9	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 12	Micrograms per Kilogram
Methylcyclohexane	Less Than 5.9	Micrograms per Kilogram
Methylene Chloride	Less Than 5.9	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 5.9	Micrograms per Kilogram
Naphthalene	Less Than 12	Micrograms per Kilogram
Styrene	Less Than 5.9	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 5.9	Micrograms per Kilogram
Tetrachloroethene	Less Than 5.9	Micrograms per Kilogram
Toluene	Less Than 5.9	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 5.9	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 5.9	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 5.9	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 5.9	Micrograms per Kilogram
Trichloroethene	Less Than 5.9	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 5.9	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 5.9	Micrograms per Kilogram
Vinyl Chloride	Less Than 5.9	Micrograms per Kilogram
m and/or p-Xylene	Less Than 5.9	Micrograms per Kilogram
o-Xylene	Less Than 5.9	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-7
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-7. This sample was collected on 06/13/2006 at the location described as: Soil sample (SB-6, 0.5-2'). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-7 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.069	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	16500	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	Less Than 5	Milligrams per Kilogram

Sample: 3047-7
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	215	Milligrams per Kilogram
Beryllium	Less Than 1	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	4180	Milligrams per Kilogram
Chromium	18.0	Milligrams per Kilogram
Cobalt	4.41	Milligrams per Kilogram
Copper	16.5	Milligrams per Kilogram
Iron	19600	Milligrams per Kilogram
Lead	11.7	Milligrams per Kilogram
Magnesium	4190	Milligrams per Kilogram
Manganese	253	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	13.8	Milligrams per Kilogram
Potassium	Approximately 1020	Milligrams per Kilogram
Selenium	Less Than 10	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	63.0	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	29.4	Milligrams per Kilogram
Zinc	46.5	Milligrams per Kilogram
Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)		
Aroclor 1016	Less Than 24	Micrograms per Kilogram
Aroclor 1221	Less Than 24	Micrograms per Kilogram
Aroclor 1232	Less Than 24	Micrograms per Kilogram
Aroclor 1242	Less Than 24	Micrograms per Kilogram
Aroclor 1248	Less Than 24	Micrograms per Kilogram
Aroclor 1254	Less Than 12	Micrograms per Kilogram
Aroclor 1260	Less Than 12	Micrograms per Kilogram
Percent Solid		
Solids, percent	80.5	Percent
Perchlorate in Soil by Ion Chromatography (IC)		
Perchlorate	Less Than 0.020	Milligrams per Kilogram
Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame		

Sample: 3047-7
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	25	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 62	Micrograms per Kilogram
Volatile Organic Compounds in Soil at Low Levels by Closed-System Purge-and-Trap GC/MS.		
Acetone	Less Than 27	Micrograms per Kilogram
Benzene	Less Than 5.7	Micrograms per Kilogram
Bromodichloromethane	Less Than 5.7	Micrograms per Kilogram
Bromoform	Less Than 5.7	Micrograms per Kilogram
Bromomethane	Less Than 5.7	Micrograms per Kilogram
2-Butanone	Less Than 5.7	Micrograms per Kilogram
Carbon Disulfide	Less Than 5.7	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 5.7	Micrograms per Kilogram
Chlorobenzene	Less Than 5.7	Micrograms per Kilogram
Chloroethane	Less Than 5.7	Micrograms per Kilogram
Chloroform	Less Than 5.7	Micrograms per Kilogram
Chloromethane	Less Than 5.7	Micrograms per Kilogram
Cyclohexane	Less Than 5.7	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 5.7	Micrograms per Kilogram
Dibromochloromethane	Less Than 5.7	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 5.7	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 5.7	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 5.7	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 5.7	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 5.7	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 5.7	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 5.7	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 5.7	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 5.7	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 5.7	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 5.7	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 5.7	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 5.7	Micrograms per Kilogram
Ethyl Benzene	Less Than 5.7	Micrograms per Kilogram

Sample: 3047-7
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
2-Hexanone	Less Than 5.7	Micrograms per Kilogram
Isopropylbenzene	Less Than 5.7	Micrograms per Kilogram
Methyl Acetate	Less Than 5.7	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 11	Micrograms per Kilogram
Methylcyclohexane	Less Than 5.7	Micrograms per Kilogram
Methylene Chloride	Less Than 5.7	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 5.7	Micrograms per Kilogram
Naphthalene	Less Than 11	Micrograms per Kilogram
Styrene	Less Than 5.7	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 5.7	Micrograms per Kilogram
Tetrachloroethene	Less Than 5.7	Micrograms per Kilogram
Toluene	Less Than 5.7	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 5.7	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 5.7	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 5.7	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 5.7	Micrograms per Kilogram
Trichloroethene	Less Than 5.7	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 5.7	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 5.7	Micrograms per Kilogram
Vinyl Chloride	Less Than 5.7	Micrograms per Kilogram
m and/or p-Xylene	Less Than 5.7	Micrograms per Kilogram
o-Xylene	Less Than 5.7	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-8
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-8. This sample was collected on 06/13/2006 at the location described as: Soil sample (SB-6, 12-14'). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-8 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.045	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	10300	Milligrams per Kilogram
Antimony	2.01	Milligrams per Kilogram
Arsenic	Less Than 5	Milligrams per Kilogram

Sample: 3047-8
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	262	Milligrams per Kilogram
Beryllium	Less Than 1	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	4770	Milligrams per Kilogram
Chromium	15.6	Milligrams per Kilogram
Cobalt	12.6	Milligrams per Kilogram
Copper	20.5	Milligrams per Kilogram
Iron	21900	Milligrams per Kilogram
Lead	19.1	Milligrams per Kilogram
Magnesium	3990	Milligrams per Kilogram
Manganese	1260	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	30.8	Milligrams per Kilogram
Potassium	Approximately 683	Milligrams per Kilogram
Selenium	Less Than 10	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	120	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	33.1	Milligrams per Kilogram
Zinc	46.1	Milligrams per Kilogram
Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)		
Aroclor 1016	Less Than 23	Micrograms per Kilogram
Aroclor 1221	Less Than 23	Micrograms per Kilogram
Aroclor 1232	Less Than 23	Micrograms per Kilogram
Aroclor 1242	Less Than 23	Micrograms per Kilogram
Aroclor 1248	Less Than 23	Micrograms per Kilogram
Aroclor 1254	Less Than 11	Micrograms per Kilogram
Aroclor 1260	Less Than 11	Micrograms per Kilogram
Percent Solid		
Solids, percent	75.2	Percent
Perchlorate in Soil by Ion Chromatography (IC)		
Perchlorate	Less Than 0.020	Milligrams per Kilogram
Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame		

Sample: 3047-8
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	11	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 68	Micrograms per Kilogram
Volatile Organic Compounds in Soil at Low Levels by Closed-System Purge-and-Trap GC/MS.		
Acetone	38	Micrograms per Kilogram
Benzene	Less Than 6.4	Micrograms per Kilogram
Bromodichloromethane	Less Than 6.4	Micrograms per Kilogram
Bromoform	Less Than 6.4	Micrograms per Kilogram
Bromomethane	Less Than 6.4	Micrograms per Kilogram
2-Butanone	Less Than 6.4	Micrograms per Kilogram
Carbon Disulfide	Less Than 6.4	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 6.4	Micrograms per Kilogram
Chlorobenzene	Less Than 6.4	Micrograms per Kilogram
Chloroethane	Less Than 6.4	Micrograms per Kilogram
Chloroform	Less Than 6.4	Micrograms per Kilogram
Chloromethane	Less Than 6.4	Micrograms per Kilogram
Cyclohexane	Less Than 6.4	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 6.4	Micrograms per Kilogram
Dibromochloromethane	Less Than 6.4	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 6.4	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 6.4	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 6.4	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 6.4	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 6.4	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 6.4	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 6.4	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 6.4	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 6.4	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 6.4	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 6.4	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 6.4	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 6.4	Micrograms per Kilogram
Ethyl Benzene	Less Than 6.4	Micrograms per Kilogram

Sample: 3047-8
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
2-Hexanone	Less Than 6.4	Micrograms per Kilogram
Isopropylbenzene	Less Than 6.4	Micrograms per Kilogram
Methyl Acetate	Less Than 6.4	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 13	Micrograms per Kilogram
Methylcyclohexane	Less Than 6.4	Micrograms per Kilogram
Methylene Chloride	Less Than 6.4	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 6.4	Micrograms per Kilogram
Naphthalene	Less Than 13	Micrograms per Kilogram
Styrene	Less Than 6.4	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 6.4	Micrograms per Kilogram
Tetrachloroethene	Less Than 6.4	Micrograms per Kilogram
Toluene	Less Than 6.4	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 6.4	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 6.4	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 6.4	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 6.4	Micrograms per Kilogram
Trichloroethene	Less Than 6.4	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 6.4	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 6.4	Micrograms per Kilogram
Vinyl Chloride	Less Than 6.4	Micrograms per Kilogram
m and/or p-Xylene	Less Than 6.4	Micrograms per Kilogram
o-Xylene	Less Than 6.4	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-9
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-9. This sample was collected on 06/13/2006 at the location described as: Soil sample (SB-7, 0.5-2'). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-9 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.106	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	17800	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	Less Than 5	Milligrams per Kilogram

Sample: 3047-9
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	311	Milligrams per Kilogram
Beryllium	1.26	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	4380	Milligrams per Kilogram
Chromium	17.4	Milligrams per Kilogram
Cobalt	14.7	Milligrams per Kilogram
Copper	21.1	Milligrams per Kilogram
Iron	25100	Milligrams per Kilogram
Lead	17.8	Milligrams per Kilogram
Magnesium	4350	Milligrams per Kilogram
Manganese	808	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	27.8	Milligrams per Kilogram
Potassium	Approximately 879	Milligrams per Kilogram
Selenium	Less Than 10	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	65.7	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	33.8	Milligrams per Kilogram
Zinc	54.0	Milligrams per Kilogram

Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than 24	Micrograms per Kilogram
Aroclor 1221	Less Than 24	Micrograms per Kilogram
Aroclor 1232	Less Than 24	Micrograms per Kilogram
Aroclor 1242	Less Than 24	Micrograms per Kilogram
Aroclor 1248	Less Than 24	Micrograms per Kilogram
Aroclor 1254	Less Than 12	Micrograms per Kilogram
Aroclor 1260	Less Than 12	Micrograms per Kilogram

Percent Solid

Solids, percent	79.8	Percent

Perchlorate in Soil by Ion Chromatography (IC)

Perchlorate	Less Than 0.020	Milligrams per Kilogram

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame

Sample: 3047-9
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	21	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 63	Micrograms per Kilogram
Volatile Organic Compounds in Soil at Low Levels by Closed-System Purge-and-Trap GC/MS.		
Acetone	Less Than 26	Micrograms per Kilogram
Benzene	Less Than 5.6	Micrograms per Kilogram
Bromodichloromethane	Less Than 5.6	Micrograms per Kilogram
Bromoform	Less Than 5.6	Micrograms per Kilogram
Bromomethane	Less Than 5.6	Micrograms per Kilogram
2-Butanone	Less Than 5.6	Micrograms per Kilogram
Carbon Disulfide	Less Than 5.6	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 5.6	Micrograms per Kilogram
Chlorobenzene	Less Than 5.6	Micrograms per Kilogram
Chloroethane	Less Than 5.6	Micrograms per Kilogram
Chloroform	Less Than 5.6	Micrograms per Kilogram
Chloromethane	Less Than 5.6	Micrograms per Kilogram
Cyclohexane	Less Than 5.6	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 5.6	Micrograms per Kilogram
Dibromochloromethane	Less Than 5.6	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 5.6	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 5.6	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 5.6	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 5.6	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 5.6	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 5.6	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 5.6	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 5.6	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 5.6	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 5.6	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 5.6	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 5.6	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 5.6	Micrograms per Kilogram
Ethyl Benzene	Less Than 5.6	Micrograms per Kilogram

Sample: 3047-9
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
2-Hexanone	Less Than 5.6	Micrograms per Kilogram
Isopropylbenzene	Less Than 5.6	Micrograms per Kilogram
Methyl Acetate	Less Than 5.6	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 11	Micrograms per Kilogram
Methylcyclohexane	Less Than 5.6	Micrograms per Kilogram
Methylene Chloride	Less Than 5.6	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 5.6	Micrograms per Kilogram
Naphthalene	Less Than 11	Micrograms per Kilogram
Styrene	Less Than 5.6	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 5.6	Micrograms per Kilogram
Tetrachloroethene	Less Than 5.6	Micrograms per Kilogram
Toluene	Less Than 5.6	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 5.6	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 5.6	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 5.6	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 5.6	Micrograms per Kilogram
Trichloroethene	Less Than 5.6	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 5.6	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 5.6	Micrograms per Kilogram
Vinyl Chloride	Less Than 5.6	Micrograms per Kilogram
m and/or p-Xylene	Less Than 5.6	Micrograms per Kilogram
o-Xylene	Less Than 5.6	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-9-FD
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-9-FD. This sample was collected on 06/13/2006 at the location described as: Soil sample (SB-7, 0.5-2')/Field Duplicate of sample 9. If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-9-FD for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.047	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	12500	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	Less Than 5	Milligrams per Kilogram

Sample: 3047-9-FD
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	206	Milligrams per Kilogram
Beryllium	Less Than 1	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	4080	Milligrams per Kilogram
Chromium	13.8	Milligrams per Kilogram
Cobalt	5.89	Milligrams per Kilogram
Copper	13.7	Milligrams per Kilogram
Iron	16400	Milligrams per Kilogram
Lead	11.1	Milligrams per Kilogram
Magnesium	3190	Milligrams per Kilogram
Manganese	361	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	12.3	Milligrams per Kilogram
Potassium	Approximately 800	Milligrams per Kilogram
Selenium	Less Than 10	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	59.0	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	29.5	Milligrams per Kilogram
Zinc	40.2	Milligrams per Kilogram
Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)		
Aroclor 1016	Less Than 24	Micrograms per Kilogram
Aroclor 1221	Less Than 24	Micrograms per Kilogram
Aroclor 1232	Less Than 24	Micrograms per Kilogram
Aroclor 1242	Less Than 24	Micrograms per Kilogram
Aroclor 1248	Less Than 24	Micrograms per Kilogram
Aroclor 1254	Less Than 12	Micrograms per Kilogram
Aroclor 1260	Less Than 12	Micrograms per Kilogram
Percent Solid		
Solids, percent	78.8	Percent
Perchlorate in Soil by Ion Chromatography (IC)		
Perchlorate	Less Than 0.020	Milligrams per Kilogram
Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame		

Sample: 3047-9-FD
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	31	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 66	Micrograms per Kilogram
Volatile Organic Compounds in Soil at Low Levels by Closed-System Purge-and-Trap GC/MS.		
Acetone	Less Than 24	Micrograms per Kilogram
Benzene	Less Than 5.6	Micrograms per Kilogram
Bromodichloromethane	Less Than 5.6	Micrograms per Kilogram
Bromoform	Less Than 5.6	Micrograms per Kilogram
Bromomethane	Less Than 5.6	Micrograms per Kilogram
2-Butanone	Less Than 5.6	Micrograms per Kilogram
Carbon Disulfide	Less Than 5.6	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 5.6	Micrograms per Kilogram
Chlorobenzene	Less Than 5.6	Micrograms per Kilogram
Chloroethane	Less Than 5.6	Micrograms per Kilogram
Chloroform	Less Than 5.6	Micrograms per Kilogram
Chloromethane	Less Than 5.6	Micrograms per Kilogram
Cyclohexane	Less Than 5.6	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 5.6	Micrograms per Kilogram
Dibromochloromethane	Less Than 5.6	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 5.6	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 5.6	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 5.6	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 5.6	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 5.6	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 5.6	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 5.6	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 5.6	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 5.6	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 5.6	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 5.6	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 5.6	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 5.6	Micrograms per Kilogram
Ethyl Benzene	Less Than 5.6	Micrograms per Kilogram

Sample: 3047-9-FD
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
2-Hexanone	Less Than 5.6	Micrograms per Kilogram
Isopropylbenzene	Less Than 5.6	Micrograms per Kilogram
Methyl Acetate	Less Than 5.6	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 11	Micrograms per Kilogram
Methylcyclohexane	Less Than 5.6	Micrograms per Kilogram
Methylene Chloride	Less Than 5.6	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 5.6	Micrograms per Kilogram
Naphthalene	Less Than 11	Micrograms per Kilogram
Styrene	Less Than 5.6	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 5.6	Micrograms per Kilogram
Tetrachloroethene	Less Than 5.6	Micrograms per Kilogram
Toluene	Less Than 5.6	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 5.6	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 5.6	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 5.6	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 5.6	Micrograms per Kilogram
Trichloroethene	Less Than 5.6	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 5.6	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 5.6	Micrograms per Kilogram
Vinyl Chloride	Less Than 5.6	Micrograms per Kilogram
m and/or p-Xylene	Less Than 5.6	Micrograms per Kilogram
o-Xylene	Less Than 5.6	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-11
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-11. This sample was collected on 06/13/2006 at the location described as: Soil sample (SB-7, 12-14'). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-11 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.034	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	18600	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	Less Than 5	Milligrams per Kilogram

Sample: 3047-11
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	159	Milligrams per Kilogram
Beryllium	Less Than 1	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	3780	Milligrams per Kilogram
Chromium	16.6	Milligrams per Kilogram
Cobalt	2.68	Milligrams per Kilogram
Copper	8.45	Milligrams per Kilogram
Iron	16500	Milligrams per Kilogram
Lead	14.8	Milligrams per Kilogram
Magnesium	2710	Milligrams per Kilogram
Manganese	36.2	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	6.30	Milligrams per Kilogram
Potassium	Approximately 511	Milligrams per Kilogram
Selenium	Less Than 10	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	68.1	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	46.7	Milligrams per Kilogram
Zinc	10.7	Milligrams per Kilogram

Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than 21	Micrograms per Kilogram
Aroclor 1221	Less Than 21	Micrograms per Kilogram
Aroclor 1232	Less Than 21	Micrograms per Kilogram
Aroclor 1242	Less Than 21	Micrograms per Kilogram
Aroclor 1248	Less Than 21	Micrograms per Kilogram
Aroclor 1254	Less Than 10	Micrograms per Kilogram
Aroclor 1260	Less Than 10	Micrograms per Kilogram

Percent Solid

Solids, percent	79.2	Percent

Perchlorate in Soil by Ion Chromatography (IC)

Perchlorate	Less Than 0.020	Milligrams per Kilogram

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame

Sample: 3047-11
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	10	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 62	Micrograms per Kilogram
Volatile Organic Compounds in Soil at Low Levels by Closed-System Purge-and-Trap GC/MS.		
Acetone	Less Than 12	Micrograms per Kilogram
Benzene	Less Than 5.0	Micrograms per Kilogram
Bromodichloromethane	Less Than 5.0	Micrograms per Kilogram
Bromoform	Less Than 5.0	Micrograms per Kilogram
Bromomethane	Less Than 5.0	Micrograms per Kilogram
2-Butanone	Less Than 5.0	Micrograms per Kilogram
Carbon Disulfide	Less Than 5.0	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 5.0	Micrograms per Kilogram
Chlorobenzene	Less Than 5.0	Micrograms per Kilogram
Chloroethane	Less Than 5.0	Micrograms per Kilogram
Chloroform	Less Than 5.0	Micrograms per Kilogram
Chloromethane	Less Than 5.0	Micrograms per Kilogram
Cyclohexane	Less Than 5.0	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 5.0	Micrograms per Kilogram
Dibromochloromethane	Less Than 5.0	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 5.0	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 5.0	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 5.0	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 5.0	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 5.0	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 5.0	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 5.0	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 5.0	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 5.0	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 5.0	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 5.0	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 5.0	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 5.0	Micrograms per Kilogram
Ethyl Benzene	Less Than 5.0	Micrograms per Kilogram

Sample: 3047-11
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
2-Hexanone	Less Than 5.0	Micrograms per Kilogram
Isopropylbenzene	Less Than 5.0	Micrograms per Kilogram
Methyl Acetate	Less Than 5.0	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 10	Micrograms per Kilogram
Methylcyclohexane	Less Than 5.0	Micrograms per Kilogram
Methylene Chloride	Less Than 5.0	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 5.0	Micrograms per Kilogram
Naphthalene	Less Than 10	Micrograms per Kilogram
Styrene	Less Than 5.0	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 5.0	Micrograms per Kilogram
Tetrachloroethene	Less Than 5.0	Micrograms per Kilogram
Toluene	Less Than 5.0	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 5.0	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 5.0	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 5.0	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 5.0	Micrograms per Kilogram
Trichloroethene	Less Than 5.0	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 5.0	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 5.0	Micrograms per Kilogram
Vinyl Chloride	Less Than 5.0	Micrograms per Kilogram
m and/or p-Xylene	Less Than 5.0	Micrograms per Kilogram
o-Xylene	Less Than 5.0	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-12
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-12. This sample was collected on 06/13/2006 at the location described as: Soil sample (SB-8, 0.5-2'). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-12 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.040	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	12200	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	Less Than 5	Milligrams per Kilogram

Sample: 3047-12
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	231	Milligrams per Kilogram
Beryllium	Less Than 1	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	5490	Milligrams per Kilogram
Chromium	14.1	Milligrams per Kilogram
Cobalt	4.94	Milligrams per Kilogram
Copper	12.5	Milligrams per Kilogram
Iron	12700	Milligrams per Kilogram
Lead	12.1	Milligrams per Kilogram
Magnesium	2690	Milligrams per Kilogram
Manganese	142	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	11.7	Milligrams per Kilogram
Potassium	Approximately 583	Milligrams per Kilogram
Selenium	Less Than 10	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	186	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	22.6	Milligrams per Kilogram
Zinc	27.2	Milligrams per Kilogram

Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than 22	Micrograms per Kilogram
Aroclor 1221	Less Than 22	Micrograms per Kilogram
Aroclor 1232	Less Than 22	Micrograms per Kilogram
Aroclor 1242	Less Than 22	Micrograms per Kilogram
Aroclor 1248	Less Than 22	Micrograms per Kilogram
Aroclor 1254	Less Than 11	Micrograms per Kilogram
Aroclor 1260	Less Than 11	Micrograms per Kilogram

Percent Solid

Solids, percent	81.5	Percent

Perchlorate in Soil by Ion Chromatography (IC)

Perchlorate	Less Than 0.020	Milligrams per Kilogram

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame

Sample: 3047-12
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	14	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 62	Micrograms per Kilogram
Volatile Organic Compounds in Soil at Low Levels by Closed-System Purge-and-Trap GC/MS.		
Acetone	Less Than 16	Micrograms per Kilogram
Benzene	Less Than 6.1	Micrograms per Kilogram
Bromodichloromethane	Less Than 6.1	Micrograms per Kilogram
Bromoform	Less Than 6.1	Micrograms per Kilogram
Bromomethane	Less Than 6.1	Micrograms per Kilogram
2-Butanone	Less Than 6.1	Micrograms per Kilogram
Carbon Disulfide	Less Than 6.1	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 6.1	Micrograms per Kilogram
Chlorobenzene	Less Than 6.1	Micrograms per Kilogram
Chloroethane	Less Than 6.1	Micrograms per Kilogram
Chloroform	Less Than 6.1	Micrograms per Kilogram
Chloromethane	Less Than 6.1	Micrograms per Kilogram
Cyclohexane	Less Than 6.1	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 6.1	Micrograms per Kilogram
Dibromochloromethane	Less Than 6.1	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 6.1	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 6.1	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 6.1	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 6.1	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 6.1	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 6.1	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 6.1	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 6.1	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 6.1	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 6.1	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 6.1	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 6.1	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 6.1	Micrograms per Kilogram
Ethyl Benzene	Less Than 6.1	Micrograms per Kilogram

Sample: 3047-12
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
2-Hexanone	Less Than 6.1	Micrograms per Kilogram
Isopropylbenzene	Less Than 6.1	Micrograms per Kilogram
Methyl Acetate	Less Than 6.1	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 12	Micrograms per Kilogram
Methylcyclohexane	Less Than 6.1	Micrograms per Kilogram
Methylene Chloride	Less Than 6.1	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 6.1	Micrograms per Kilogram
Naphthalene	Less Than 12	Micrograms per Kilogram
Styrene	Less Than 6.1	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 6.1	Micrograms per Kilogram
Tetrachloroethene	Less Than 6.1	Micrograms per Kilogram
Toluene	Less Than 6.1	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 6.1	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 6.1	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 6.1	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 6.1	Micrograms per Kilogram
Trichloroethene	Less Than 6.1	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 6.1	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 6.1	Micrograms per Kilogram
Vinyl Chloride	Less Than 6.1	Micrograms per Kilogram
m and/or p-Xylene	Less Than 6.1	Micrograms per Kilogram
o-Xylene	Less Than 6.1	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-13
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-13. This sample was collected on 06/13/2006 at the location described as: Soil sample (SB-8, 12-14'). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-13 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.017	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	12500	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	Less Than 5	Milligrams per Kilogram

Sample: 3047-13
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	159	Milligrams per Kilogram
Beryllium	1.06	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	4590	Milligrams per Kilogram
Chromium	11.1	Milligrams per Kilogram
Cobalt	8.29	Milligrams per Kilogram
Copper	9.98	Milligrams per Kilogram
Iron	9700	Milligrams per Kilogram
Lead	31.3	Milligrams per Kilogram
Magnesium	2260	Milligrams per Kilogram
Manganese	292	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	7.39	Milligrams per Kilogram
Potassium	Approximately 471	Milligrams per Kilogram
Selenium	Less Than 10	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	73.9	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	30.5	Milligrams per Kilogram
Zinc	10.5	Milligrams per Kilogram

Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than 22	Micrograms per Kilogram
Aroclor 1221	Less Than 22	Micrograms per Kilogram
Aroclor 1232	Less Than 22	Micrograms per Kilogram
Aroclor 1242	Less Than 22	Micrograms per Kilogram
Aroclor 1248	Less Than 22	Micrograms per Kilogram
Aroclor 1254	Less Than 11	Micrograms per Kilogram
Aroclor 1260	Less Than 11	Micrograms per Kilogram

Percent Solid

Solids, percent	79.5	Percent

Perchlorate in Soil by Ion Chromatography (IC)

Perchlorate	Less Than 0.020	Milligrams per Kilogram

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame

Sample: 3047-13
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	15	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 64	Micrograms per Kilogram
Volatile Organic Compounds in Soil at Low Levels by Closed-System Purge-and-Trap GC/MS.		
Acetone	Less Than 10	Micrograms per Kilogram
Benzene	Less Than 5.2	Micrograms per Kilogram
Bromodichloromethane	Less Than 5.2	Micrograms per Kilogram
Bromoform	Less Than 5.2	Micrograms per Kilogram
Bromomethane	Less Than 5.2	Micrograms per Kilogram
2-Butanone	Less Than 5.2	Micrograms per Kilogram
Carbon Disulfide	Less Than 5.2	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 5.2	Micrograms per Kilogram
Chlorobenzene	Less Than 5.2	Micrograms per Kilogram
Chloroethane	Less Than 5.2	Micrograms per Kilogram
Chloroform	Less Than 5.2	Micrograms per Kilogram
Chloromethane	Less Than 5.2	Micrograms per Kilogram
Cyclohexane	Less Than 5.2	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 5.2	Micrograms per Kilogram
Dibromochloromethane	Less Than 5.2	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 5.2	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 5.2	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 5.2	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 5.2	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 5.2	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 5.2	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 5.2	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 5.2	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 5.2	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 5.2	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 5.2	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 5.2	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 5.2	Micrograms per Kilogram
Ethyl Benzene	Less Than 5.2	Micrograms per Kilogram

Sample: 3047-13
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
2-Hexanone	Less Than 5.2	Micrograms per Kilogram
Isopropylbenzene	Less Than 5.2	Micrograms per Kilogram
Methyl Acetate	Less Than 5.2	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 10	Micrograms per Kilogram
Methylcyclohexane	Less Than 5.2	Micrograms per Kilogram
Methylene Chloride	Less Than 5.2	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 5.2	Micrograms per Kilogram
Naphthalene	Less Than 10	Micrograms per Kilogram
Styrene	Less Than 5.2	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 5.2	Micrograms per Kilogram
Tetrachloroethene	Less Than 5.2	Micrograms per Kilogram
Toluene	Less Than 5.2	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 5.2	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 5.2	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 5.2	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 5.2	Micrograms per Kilogram
Trichloroethene	Less Than 5.2	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 5.2	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 5.2	Micrograms per Kilogram
Vinyl Chloride	Less Than 5.2	Micrograms per Kilogram
m and/or p-Xylene	Less Than 5.2	Micrograms per Kilogram
o-Xylene	Less Than 5.2	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-14
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-14. This sample was collected on 06/13/2006 at the location described as: Soil sample (SB-9, 0.5-2'). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-14 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.044	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	15500	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	10.3	Milligrams per Kilogram

Sample: 3047-14
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	273	Milligrams per Kilogram
Beryllium	1.26	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	9220	Milligrams per Kilogram
Chromium	18.6	Milligrams per Kilogram
Cobalt	12.8	Milligrams per Kilogram
Copper	26.0	Milligrams per Kilogram
Iron	25200	Milligrams per Kilogram
Lead	23.3	Milligrams per Kilogram
Magnesium	5020	Milligrams per Kilogram
Manganese	1140	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	30.3	Milligrams per Kilogram
Potassium	Approximately 870	Milligrams per Kilogram
Selenium	Less Than 10	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	108	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	40.6	Milligrams per Kilogram
Zinc	49.4	Milligrams per Kilogram

Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than 22	Micrograms per Kilogram
Aroclor 1221	Less Than 22	Micrograms per Kilogram
Aroclor 1232	Less Than 22	Micrograms per Kilogram
Aroclor 1242	Less Than 22	Micrograms per Kilogram
Aroclor 1248	Less Than 22	Micrograms per Kilogram
Aroclor 1254	Less Than 11	Micrograms per Kilogram
Aroclor 1260	Less Than 11	Micrograms per Kilogram

Percent Solid

Solids, percent	80.9	Percent

Perchlorate in Soil by Ion Chromatography (IC)

Perchlorate	Less Than 0.020	Milligrams per Kilogram

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame

Sample: 3047-14
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	9.9	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 63	Micrograms per Kilogram
Volatile Organic Compounds in Soil at Low Levels by Closed-System Purge-and-Trap GC/MS.		
Acetone	Less Than 29	Micrograms per Kilogram
Benzene	Less Than 5.1	Micrograms per Kilogram
Bromodichloromethane	Less Than 5.1	Micrograms per Kilogram
Bromoform	Less Than 5.1	Micrograms per Kilogram
Bromomethane	Less Than 5.1	Micrograms per Kilogram
2-Butanone	Less Than 5.1	Micrograms per Kilogram
Carbon Disulfide	Less Than 5.1	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 5.1	Micrograms per Kilogram
Chlorobenzene	Less Than 5.1	Micrograms per Kilogram
Chloroethane	Less Than 5.1	Micrograms per Kilogram
Chloroform	Less Than 5.1	Micrograms per Kilogram
Chloromethane	Less Than 5.1	Micrograms per Kilogram
Cyclohexane	Less Than 5.1	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 5.1	Micrograms per Kilogram
Dibromochloromethane	Less Than 5.1	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 5.1	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 5.1	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 5.1	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 5.1	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 5.1	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 5.1	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 5.1	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 5.1	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 5.1	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 5.1	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 5.1	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 5.1	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 5.1	Micrograms per Kilogram
Ethyl Benzene	Less Than 5.1	Micrograms per Kilogram

Sample: 3047-14
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
2-Hexanone	Less Than 5.1	Micrograms per Kilogram
Isopropylbenzene	Less Than 5.1	Micrograms per Kilogram
Methyl Acetate	Less Than 5.1	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 10	Micrograms per Kilogram
Methylcyclohexane	Less Than 5.1	Micrograms per Kilogram
Methylene Chloride	Less Than 5.1	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 5.1	Micrograms per Kilogram
Naphthalene	Less Than 10	Micrograms per Kilogram
Styrene	Less Than 5.1	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 5.1	Micrograms per Kilogram
Tetrachloroethene	Less Than 5.1	Micrograms per Kilogram
Toluene	Less Than 5.1	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 5.1	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 5.1	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 5.1	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 5.1	Micrograms per Kilogram
Trichloroethene	Less Than 5.1	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 5.1	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 5.1	Micrograms per Kilogram
Vinyl Chloride	Less Than 5.1	Micrograms per Kilogram
m and/or p-Xylene	Less Than 5.1	Micrograms per Kilogram
o-Xylene	Less Than 5.1	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-15
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-15. This sample was collected on 06/13/2006 at the location described as: Soil sample (SB-9, 10-12'). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-15 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.022	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	13600	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	Less Than 5	Milligrams per Kilogram

Sample: 3047-15
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	259	Milligrams per Kilogram
Beryllium	1.05	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	3740	Milligrams per Kilogram
Chromium	11.1	Milligrams per Kilogram
Cobalt	8.68	Milligrams per Kilogram
Copper	7.18	Milligrams per Kilogram
Iron	36400	Milligrams per Kilogram
Lead	13.7	Milligrams per Kilogram
Magnesium	2230	Milligrams per Kilogram
Manganese	1250	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	9.14	Milligrams per Kilogram
Potassium	Approximately 354	Milligrams per Kilogram
Selenium	10.4	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	59.2	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	53.3	Milligrams per Kilogram
Zinc	Less Than 5	Milligrams per Kilogram

Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than 21	Micrograms per Kilogram
Aroclor 1221	Less Than 21	Micrograms per Kilogram
Aroclor 1232	Less Than 21	Micrograms per Kilogram
Aroclor 1242	Less Than 21	Micrograms per Kilogram
Aroclor 1248	Less Than 21	Micrograms per Kilogram
Aroclor 1254	Less Than 11	Micrograms per Kilogram
Aroclor 1260	Less Than 11	Micrograms per Kilogram

Percent Solid

Solids, percent	78.5	Percent

Perchlorate in Soil by Ion Chromatography (IC)

Perchlorate	Less Than 0.020	Milligrams per Kilogram

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame

Sample: 3047-15
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	14	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Approximately 1600	Micrograms per Kilogram
Volatile Organic Compounds in Soil at Low Levels by Closed-System Purge-and-Trap GC/MS.		
Acetone	1700	Micrograms per Kilogram
Benzene	Less Than 580	Micrograms per Kilogram
Bromodichloromethane	Less Than 580	Micrograms per Kilogram
Bromoform	Less Than 580	Micrograms per Kilogram
Bromomethane	Less Than 580	Micrograms per Kilogram
2-Butanone	5800	Micrograms per Kilogram
Carbon Disulfide	Less Than 580	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 580	Micrograms per Kilogram
Chlorobenzene	Less Than 580	Micrograms per Kilogram
Chloroethane	Less Than 580	Micrograms per Kilogram
Chloroform	Less Than 580	Micrograms per Kilogram
Chloromethane	Less Than 580	Micrograms per Kilogram
Cyclohexane	Less Than 1300	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 580	Micrograms per Kilogram
Dibromochloromethane	Less Than 580	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 580	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 580	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 580	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 580	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 580	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 580	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 580	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 580	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 580	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 580	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 580	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 580	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 580	Micrograms per Kilogram
Ethyl Benzene	Less Than 580	Micrograms per Kilogram

Sample: 3047-15
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
2-Hexanone	Less Than 580	Micrograms per Kilogram
Isopropylbenzene	Less Than 580	Micrograms per Kilogram
Methyl Acetate	Less Than 580	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 1200	Micrograms per Kilogram
Methylcyclohexane	Less Than 2900	Micrograms per Kilogram
Methylene Chloride	Less Than 580	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 580	Micrograms per Kilogram
Naphthalene	Less Than 1200	Micrograms per Kilogram
Styrene	Less Than 580	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 580	Micrograms per Kilogram
Tetrachloroethene	Less Than 580	Micrograms per Kilogram
Toluene	Less Than 580	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 580	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 580	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 580	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 580	Micrograms per Kilogram
Trichloroethene	Less Than 580	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 580	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 580	Micrograms per Kilogram
Vinyl Chloride	Less Than 580	Micrograms per Kilogram
m and/or p-Xylene	Less Than 580	Micrograms per Kilogram
o-Xylene	Less Than 580	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-16
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-16. This sample was collected on 06/13/2006 at the location described as: Soil sample (SB-10, 0.5-2'). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-16 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.052	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	13200	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	11.3	Milligrams per Kilogram

Sample: 3047-16
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	235	Milligrams per Kilogram
Beryllium	1.26	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	6120	Milligrams per Kilogram
Chromium	16.2	Milligrams per Kilogram
Cobalt	18.8	Milligrams per Kilogram
Copper	27.7	Milligrams per Kilogram
Iron	21200	Milligrams per Kilogram
Lead	23.0	Milligrams per Kilogram
Magnesium	4600	Milligrams per Kilogram
Manganese	697	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	35.7	Milligrams per Kilogram
Potassium	Approximately 659	Milligrams per Kilogram
Selenium	Less Than 10	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	87.8	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	37.3	Milligrams per Kilogram
Zinc	50.3	Milligrams per Kilogram

Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than 21	Micrograms per Kilogram
Aroclor 1221	Less Than 21	Micrograms per Kilogram
Aroclor 1232	Less Than 21	Micrograms per Kilogram
Aroclor 1242	Less Than 21	Micrograms per Kilogram
Aroclor 1248	Less Than 21	Micrograms per Kilogram
Aroclor 1254	Less Than 11	Micrograms per Kilogram
Aroclor 1260	Less Than 11	Micrograms per Kilogram

Percent Solid

Solids, percent	82.7	Percent

Perchlorate in Soil by Ion Chromatography (IC)

Perchlorate	Less Than 0.020	Milligrams per Kilogram

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame

Sample: 3047-16
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	13	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 61	Micrograms per Kilogram
Volatile Organic Compounds in Soil at Low Levels by Closed-System Purge-and-Trap GC/MS.		
Acetone	Less Than 16	Micrograms per Kilogram
Benzene	Less Than 5.8	Micrograms per Kilogram
Bromodichloromethane	Less Than 5.8	Micrograms per Kilogram
Bromoform	Less Than 5.8	Micrograms per Kilogram
Bromomethane	Less Than 5.8	Micrograms per Kilogram
2-Butanone	Less Than 5.8	Micrograms per Kilogram
Carbon Disulfide	Less Than 5.8	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 5.8	Micrograms per Kilogram
Chlorobenzene	Less Than 5.8	Micrograms per Kilogram
Chloroethane	Less Than 5.8	Micrograms per Kilogram
Chloroform	Less Than 5.8	Micrograms per Kilogram
Chloromethane	Less Than 5.8	Micrograms per Kilogram
Cyclohexane	Less Than 5.8	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 5.8	Micrograms per Kilogram
Dibromochloromethane	Less Than 5.8	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 5.8	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 5.8	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 5.8	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 5.8	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 5.8	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 5.8	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 5.8	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 5.8	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 5.8	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 5.8	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 5.8	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 5.8	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 5.8	Micrograms per Kilogram
Ethyl Benzene	Less Than 5.8	Micrograms per Kilogram

Sample: 3047-16
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
2-Hexanone	Less Than 5.8	Micrograms per Kilogram
Isopropylbenzene	Less Than 5.8	Micrograms per Kilogram
Methyl Acetate	Less Than 5.8	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 12	Micrograms per Kilogram
Methylcyclohexane	Less Than 6.7	Micrograms per Kilogram
Methylene Chloride	Less Than 5.8	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 5.8	Micrograms per Kilogram
Naphthalene	Less Than 12	Micrograms per Kilogram
Styrene	Less Than 5.8	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 5.8	Micrograms per Kilogram
Tetrachloroethene	Less Than 5.8	Micrograms per Kilogram
Toluene	Less Than 5.8	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 5.8	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 5.8	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 5.8	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 5.8	Micrograms per Kilogram
Trichloroethene	Less Than 5.8	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 5.8	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 5.8	Micrograms per Kilogram
Vinyl Chloride	Less Than 5.8	Micrograms per Kilogram
m and/or p-Xylene	Less Than 5.8	Micrograms per Kilogram
o-Xylene	Less Than 5.8	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-17
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-17. This sample was collected on 06/13/2006 at the location described as: Soil sample (SB-10, 12-14'). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-17 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.028	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	13000	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	6.96	Milligrams per Kilogram

Sample: 3047-17
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	215	Milligrams per Kilogram
Beryllium	1.07	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	10500	Milligrams per Kilogram
Chromium	12.7	Milligrams per Kilogram
Cobalt	12.6	Milligrams per Kilogram
Copper	11.1	Milligrams per Kilogram
Iron	22900	Milligrams per Kilogram
Lead	15.7	Milligrams per Kilogram
Magnesium	4920	Milligrams per Kilogram
Manganese	904	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	14.3	Milligrams per Kilogram
Potassium	Approximately 591	Milligrams per Kilogram
Selenium	10.4	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	89.4	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	62.1	Milligrams per Kilogram
Zinc	18.7	Milligrams per Kilogram

Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than 21	Micrograms per Kilogram
Aroclor 1221	Less Than 21	Micrograms per Kilogram
Aroclor 1232	Less Than 21	Micrograms per Kilogram
Aroclor 1242	Less Than 21	Micrograms per Kilogram
Aroclor 1248	Less Than 21	Micrograms per Kilogram
Aroclor 1254	Less Than 11	Micrograms per Kilogram
Aroclor 1260	Less Than 11	Micrograms per Kilogram

Percent Solid

Solids, percent	76.0	Percent

Perchlorate in Soil by Ion Chromatography (IC)

Perchlorate	Less Than 0.020	Milligrams per Kilogram

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame

Sample: 3047-17
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	4.8	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 65	Micrograms per Kilogram
Volatile Organic Compounds in Soil at Low Levels by Closed-System Purge-and-Trap GC/MS.		
Acetone	Less Than 5.4	Micrograms per Kilogram
Benzene	Less Than 4.8	Micrograms per Kilogram
Bromodichloromethane	Less Than 4.8	Micrograms per Kilogram
Bromoform	Less Than 4.8	Micrograms per Kilogram
Bromomethane	Less Than 4.8	Micrograms per Kilogram
2-Butanone	Less Than 4.8	Micrograms per Kilogram
Carbon Disulfide	Less Than 4.8	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 4.8	Micrograms per Kilogram
Chlorobenzene	Less Than 4.8	Micrograms per Kilogram
Chloroethane	Less Than 4.8	Micrograms per Kilogram
Chloroform	Less Than 4.8	Micrograms per Kilogram
Chloromethane	Less Than 4.8	Micrograms per Kilogram
Cyclohexane	Less Than 4.8	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 4.8	Micrograms per Kilogram
Dibromochloromethane	Less Than 4.8	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 4.8	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 4.8	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 4.8	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 4.8	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 4.8	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 4.8	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 4.8	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 4.8	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 4.8	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 4.8	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 4.8	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 4.8	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 4.8	Micrograms per Kilogram
Ethyl Benzene	Less Than 4.8	Micrograms per Kilogram

Sample: 3047-17
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
2-Hexanone	Less Than 4.8	Micrograms per Kilogram
Isopropylbenzene	Less Than 4.8	Micrograms per Kilogram
Methyl Acetate	Less Than 4.8	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 9.6	Micrograms per Kilogram
Methylcyclohexane	Less Than 4.8	Micrograms per Kilogram
Methylene Chloride	Less Than 4.8	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 4.8	Micrograms per Kilogram
Naphthalene	Less Than 9.6	Micrograms per Kilogram
Styrene	Less Than 4.8	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 4.8	Micrograms per Kilogram
Tetrachloroethene	Less Than 4.8	Micrograms per Kilogram
Toluene	Less Than 4.8	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 4.8	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 4.8	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 4.8	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 4.8	Micrograms per Kilogram
Trichloroethene	Less Than 4.8	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 4.8	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 4.8	Micrograms per Kilogram
Vinyl Chloride	Less Than 4.8	Micrograms per Kilogram
m and/or p-Xylene	Less Than 4.8	Micrograms per Kilogram
o-Xylene	Less Than 4.8	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-18
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-18. This sample was collected on 06/13/2006 at the location described as: Soil sample (SB-11, 0.5-2'). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-18 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.033	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	14100	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	9.90	Milligrams per Kilogram

Sample: 3047-18
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	247	Milligrams per Kilogram
Beryllium	1.12	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	10100	Milligrams per Kilogram
Chromium	15.6	Milligrams per Kilogram
Cobalt	19.5	Milligrams per Kilogram
Copper	19.4	Milligrams per Kilogram
Iron	21100	Milligrams per Kilogram
Lead	37.9	Milligrams per Kilogram
Magnesium	3270	Milligrams per Kilogram
Manganese	1380	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	22.3	Milligrams per Kilogram
Potassium	Approximately 1380	Milligrams per Kilogram
Selenium	Less Than 10	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	77.9	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	38.6	Milligrams per Kilogram
Zinc	77.3	Milligrams per Kilogram

Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than 22	Micrograms per Kilogram
Aroclor 1221	Less Than 22	Micrograms per Kilogram
Aroclor 1232	Less Than 22	Micrograms per Kilogram
Aroclor 1242	Less Than 22	Micrograms per Kilogram
Aroclor 1248	Less Than 22	Micrograms per Kilogram
Aroclor 1254	Less Than 11	Micrograms per Kilogram
Aroclor 1260	Less Than 11	Micrograms per Kilogram

Percent Solid

Solids, percent	86.6	Percent

Perchlorate in Soil by Ion Chromatography (IC)

Perchlorate	Less Than 0.020	Milligrams per Kilogram

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame

Sample: 3047-18
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	Less Than 44	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 57	Micrograms per Kilogram
Volatile Organic Compounds in Soil at Low Levels by Closed-System Purge-and-Trap GC/MS.		
Acetone	160	Micrograms per Kilogram
Benzene	Less Than 5.5	Micrograms per Kilogram
Bromodichloromethane	Less Than 5.5	Micrograms per Kilogram
Bromoform	Less Than 5.5	Micrograms per Kilogram
Bromomethane	Less Than 5.5	Micrograms per Kilogram
2-Butanone	14	Micrograms per Kilogram
Carbon Disulfide	Less Than 5.5	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 5.5	Micrograms per Kilogram
Chlorobenzene	Less Than 5.5	Micrograms per Kilogram
Chloroethane	Less Than 5.5	Micrograms per Kilogram
Chloroform	Less Than 5.5	Micrograms per Kilogram
Chloromethane	Less Than 5.5	Micrograms per Kilogram
Cyclohexane	Less Than 5.5	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 5.5	Micrograms per Kilogram
Dibromochloromethane	Less Than 5.5	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 5.5	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 5.5	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 5.5	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 5.5	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 5.5	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 5.5	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 5.5	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 5.5	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 5.5	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 5.5	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 5.5	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 5.5	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 5.5	Micrograms per Kilogram
Ethyl Benzene	Less Than 5.5	Micrograms per Kilogram

Sample: 3047-18
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
2-Hexanone	Less Than 5.5	Micrograms per Kilogram
Isopropylbenzene	Less Than 5.5	Micrograms per Kilogram
Methyl Acetate	Less Than 5.5	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 11	Micrograms per Kilogram
Methylcyclohexane	Less Than 5.5	Micrograms per Kilogram
Methylene Chloride	Less Than 5.5	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 5.5	Micrograms per Kilogram
Naphthalene	Less Than 11	Micrograms per Kilogram
Styrene	Less Than 5.5	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 5.5	Micrograms per Kilogram
Tetrachloroethene	Less Than 5.5	Micrograms per Kilogram
Toluene	Less Than 5.5	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 5.5	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 5.5	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 5.5	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 5.5	Micrograms per Kilogram
Trichloroethene	Less Than 5.5	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 5.5	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 5.5	Micrograms per Kilogram
Vinyl Chloride	Less Than 5.5	Micrograms per Kilogram
m and/or p-Xylene	Less Than 5.5	Micrograms per Kilogram
o-Xylene	Less Than 5.5	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-19
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-19. This sample was collected on 06/13/2006 at the location described as: Soil background sample (North of Terminal Ave., 12-14'). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-19 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.031	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	10500	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	Less Than 5	Milligrams per Kilogram

Sample: 3047-19
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	211	Milligrams per Kilogram
Beryllium	Less Than 1	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	4110	Milligrams per Kilogram
Chromium	10.9	Milligrams per Kilogram
Cobalt	23.1	Milligrams per Kilogram
Copper	12.3	Milligrams per Kilogram
Iron	16300	Milligrams per Kilogram
Lead	12.7	Milligrams per Kilogram
Magnesium	2550	Milligrams per Kilogram
Manganese	1450	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	15.3	Milligrams per Kilogram
Potassium	Approximately 461	Milligrams per Kilogram
Selenium	Less Than 10	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	132	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	36.5	Milligrams per Kilogram
Zinc	22.1	Milligrams per Kilogram

Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than 21	Micrograms per Kilogram
Aroclor 1221	Less Than 21	Micrograms per Kilogram
Aroclor 1232	Less Than 21	Micrograms per Kilogram
Aroclor 1242	Less Than 21	Micrograms per Kilogram
Aroclor 1248	Less Than 21	Micrograms per Kilogram
Aroclor 1254	Less Than 10	Micrograms per Kilogram
Aroclor 1260	Less Than 10	Micrograms per Kilogram

Percent Solid

Solids, percent	77.7	Percent

Perchlorate in Soil by Ion Chromatography (IC)

Perchlorate	Less Than 0.020	Milligrams per Kilogram

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame

Sample: 3047-19
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	Less Than 42	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 65	Micrograms per Kilogram
Volatile Organic Compounds in Soil at Low Levels by Closed-System Purge-and-Trap GC/MS.		
Acetone	Less Than 9.4	Micrograms per Kilogram
Benzene	Less Than 5.9	Micrograms per Kilogram
Bromodichloromethane	Less Than 5.9	Micrograms per Kilogram
Bromoform	Less Than 5.9	Micrograms per Kilogram
Bromomethane	Less Than 5.9	Micrograms per Kilogram
2-Butanone	Less Than 5.9	Micrograms per Kilogram
Carbon Disulfide	Less Than 5.9	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 5.9	Micrograms per Kilogram
Chlorobenzene	Less Than 5.9	Micrograms per Kilogram
Chloroethane	Less Than 5.9	Micrograms per Kilogram
Chloroform	Less Than 5.9	Micrograms per Kilogram
Chloromethane	Less Than 5.9	Micrograms per Kilogram
Cyclohexane	Less Than 5.9	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 5.9	Micrograms per Kilogram
Dibromochloromethane	Less Than 5.9	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 5.9	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 5.9	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 5.9	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 5.9	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 5.9	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 5.9	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 5.9	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 5.9	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 5.9	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 5.9	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 5.9	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 5.9	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 5.9	Micrograms per Kilogram
Ethyl Benzene	Less Than 5.9	Micrograms per Kilogram

Sample: 3047-19
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
2-Hexanone	Less Than 5.9	Micrograms per Kilogram
Isopropylbenzene	Less Than 5.9	Micrograms per Kilogram
Methyl Acetate	Less Than 5.9	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 12	Micrograms per Kilogram
Methylcyclohexane	Less Than 6.7	Micrograms per Kilogram
Methylene Chloride	Less Than 5.9	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 5.9	Micrograms per Kilogram
Naphthalene	Less Than 12	Micrograms per Kilogram
Styrene	Less Than 5.9	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 5.9	Micrograms per Kilogram
Tetrachloroethene	Less Than 5.9	Micrograms per Kilogram
Toluene	Less Than 5.9	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 5.9	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 5.9	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 5.9	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 5.9	Micrograms per Kilogram
Trichloroethene	Less Than 5.9	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 5.9	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 5.9	Micrograms per Kilogram
Vinyl Chloride	Less Than 5.9	Micrograms per Kilogram
m and/or p-Xylene	Less Than 5.9	Micrograms per Kilogram
o-Xylene	Less Than 5.9	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-20
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-20. This sample was collected on 06/14/2006 at the location described as: Sediment sample (SED-4)/Downstream of Sed 1 and 2. If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-20 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.027	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	10700	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	Less Than 5	Milligrams per Kilogram

Sample: 3047-20
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	188	Milligrams per Kilogram
Beryllium	Less Than 1	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	9840	Milligrams per Kilogram
Chromium	Approximately 11.5	Milligrams per Kilogram
Cobalt	7.25	Milligrams per Kilogram
Copper	12.9	Milligrams per Kilogram
Iron	Approximately 14000	Milligrams per Kilogram
Lead	16.5	Milligrams per Kilogram
Magnesium	Approximately 2980	Milligrams per Kilogram
Manganese	749	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	13.5	Milligrams per Kilogram
Potassium	Approximately 874	Milligrams per Kilogram
Selenium	Less Than 10	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	Approximately 136	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	29.6	Milligrams per Kilogram
Zinc	38.9	Milligrams per Kilogram

Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than 21	Micrograms per Kilogram
Aroclor 1221	Less Than 21	Micrograms per Kilogram
Aroclor 1232	Less Than 21	Micrograms per Kilogram
Aroclor 1242	Less Than 21	Micrograms per Kilogram
Aroclor 1248	Less Than 21	Micrograms per Kilogram
Aroclor 1254	Less Than 10	Micrograms per Kilogram
Aroclor 1260	Less Than 10	Micrograms per Kilogram

Percent Solid

Solids, percent	67.9	Percent

Perchlorate in Soil by Ion Chromatography (IC)

Perchlorate	Less Than 0.020	Milligrams per Kilogram

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame

Sample: 3047-20
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	Less Than 41	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 72	Micrograms per Kilogram
Volatile Organic Compounds (VOCs) in Solid Matrices by Gas Chromatography and Mass Selective Detection (GC/MS)		
Acetone	Less Than 6.4	Micrograms per Kilogram
Benzene	Less Than 6.4	Micrograms per Kilogram
Bromodichloromethane	Less Than 6.4	Micrograms per Kilogram
Bromoform	Less Than 6.4	Micrograms per Kilogram
Bromomethane	Less Than 6.4	Micrograms per Kilogram
2-Butanone	Less Than 6.4	Micrograms per Kilogram
Carbon Disulfide	Less Than 6.4	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 6.4	Micrograms per Kilogram
Chlorobenzene	Less Than 6.4	Micrograms per Kilogram
Chloroethane	Less Than 6.4	Micrograms per Kilogram
Chloroform	Less Than 6.4	Micrograms per Kilogram
Chloromethane	Less Than 6.4	Micrograms per Kilogram
Cyclohexane	Less Than 6.4	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 6.4	Micrograms per Kilogram
Dibromochloromethane	Less Than 6.4	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 6.4	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 6.4	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 6.4	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 6.4	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 6.4	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 6.4	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 6.4	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 6.4	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 6.4	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 6.4	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 6.4	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 6.4	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 6.4	Micrograms per Kilogram

Sample: 3047-20
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ethyl Benzene	Less Than 6.4	Micrograms per Kilogram
2-Hexanone	Less Than 6.4	Micrograms per Kilogram
Isopropylbenzene	Less Than 6.4	Micrograms per Kilogram
Methyl Acetate	Less Than 6.4	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 13	Micrograms per Kilogram
Methylcyclohexane	Less Than 6.4	Micrograms per Kilogram
Methylene Chloride	Less Than 6.4	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 6.4	Micrograms per Kilogram
Naphthalene	Less Than 13	Micrograms per Kilogram
Styrene	Less Than 6.4	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 6.4	Micrograms per Kilogram
Tetrachloroethene	Less Than 6.4	Micrograms per Kilogram
Toluene	Less Than 6.4	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 6.4	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 6.4	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 6.4	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 6.4	Micrograms per Kilogram
Trichloroethene	Less Than 6.4	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 6.4	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 6.4	Micrograms per Kilogram
Vinyl Chloride	Less Than 6.4	Micrograms per Kilogram
m and/or p-Xylene	Less Than 6.4	Micrograms per Kilogram
o-Xylene	Less Than 6.4	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-21-FB
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-21-FB. This sample was collected on 06/12/2006 at the location described as: Soil 5035 VOA/TPH (OA-1) Trip Blank sample. If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-21-FB for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Percent Solid		
Solids, percent	96.3	Percent
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 52	Micrograms per Kilogram
Volatile Organic Compounds in Soil at Low Levels by Closed-System Purge-and-Trap GC/MS.		
Acetone	Less Than 19	Micrograms per Kilogram
Benzene	Less Than 5.4	Micrograms per Kilogram
Bromodichloromethane	Less Than 5.4	Micrograms per Kilogram
Bromoform	Less Than 5.4	Micrograms per Kilogram
Bromomethane	Less Than 5.4	Micrograms per Kilogram
2-Butanone	Less Than 5.4	Micrograms per Kilogram
Carbon Disulfide	Less Than 5.4	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 5.4	Micrograms per Kilogram
Chlorobenzene	Less Than 5.4	Micrograms per Kilogram
Chloroethane	Less Than 5.4	Micrograms per Kilogram
Chloroform	Less Than 5.4	Micrograms per Kilogram
Chloromethane	Less Than 5.4	Micrograms per Kilogram
Cyclohexane	Less Than 5.4	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 5.4	Micrograms per Kilogram
Dibromochloromethane	Less Than 5.4	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 5.4	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 5.4	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 5.4	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 5.4	Micrograms per Kilogram

Sample: 3047-21-FB
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Dichlorodifluoromethane	Less Than 5.4	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 5.4	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 5.4	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 5.4	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 5.4	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 5.4	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 5.4	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 5.4	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 5.4	Micrograms per Kilogram
Ethyl Benzene	Less Than 5.4	Micrograms per Kilogram
2-Hexanone	Less Than 5.4	Micrograms per Kilogram
Isopropylbenzene	Less Than 5.4	Micrograms per Kilogram
Methyl Acetate	Less Than 5.4	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 11	Micrograms per Kilogram
Methylcyclohexane	Less Than 6.3	Micrograms per Kilogram
Methylene Chloride	Less Than 5.4	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 5.4	Micrograms per Kilogram
Naphthalene	Less Than 11	Micrograms per Kilogram
Styrene	Less Than 5.4	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 5.4	Micrograms per Kilogram
Tetrachloroethene	Less Than 5.4	Micrograms per Kilogram
Toluene	Less Than 5.4	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 5.4	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 5.4	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 5.4	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 5.4	Micrograms per Kilogram
Trichloroethene	Less Than 5.4	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 5.4	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 5.4	Micrograms per Kilogram
Vinyl Chloride	Less Than 5.4	Micrograms per Kilogram
m and/or p-Xylene	Less Than 5.4	Micrograms per Kilogram
o-Xylene	Less Than 5.4	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-22
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-22. This sample was collected on 06/12/2006 at the location described as: Sediment sample - 1 (from drainage NNE of treatment plant). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-22 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.028	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	13200	Milligrams per Kilogram
Antimony	Less Than 2.37	Milligrams per Kilogram
Arsenic	Less Than 5	Milligrams per Kilogram

Sample: 3047-22
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	180	Milligrams per Kilogram
Beryllium	Less Than 1	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	7510	Milligrams per Kilogram
Chromium	Approximately 14.7	Milligrams per Kilogram
Cobalt	6.52	Milligrams per Kilogram
Copper	14.2	Milligrams per Kilogram
Iron	17800	Milligrams per Kilogram
Lead	17.4	Milligrams per Kilogram
Magnesium	2880	Milligrams per Kilogram
Manganese	580	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	14.8	Milligrams per Kilogram
Potassium	1190	Milligrams per Kilogram
Selenium	Less Than 10	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	85.9	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	32.0	Milligrams per Kilogram
Zinc	53.2	Milligrams per Kilogram

Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than	24	Micrograms per Kilogram
Aroclor 1221	Less Than	24	Micrograms per Kilogram
Aroclor 1232	Less Than	24	Micrograms per Kilogram
Aroclor 1242	Less Than	24	Micrograms per Kilogram
Aroclor 1248	Less Than	24	Micrograms per Kilogram
Aroclor 1254	Less Than	12	Micrograms per Kilogram
Aroclor 1260	Less Than	12	Micrograms per Kilogram

Percent Solid

Solids, percent		80.1	Percent

Perchlorate in Soil by Ion Chromatography (IC)

Perchlorate	Less Than	0.020	Milligrams per Kilogram

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame

Sample: 3047-22
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	Less Than 48	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 62	Micrograms per Kilogram
Volatile Organic Compounds (VOCs) in Solid Matrices by Gas Chromatography and Mass Selective Detection (GC/MS)		
Acetone	Less Than 5.1	Micrograms per Kilogram
Benzene	Less Than 5.1	Micrograms per Kilogram
Bromodichloromethane	Less Than 5.1	Micrograms per Kilogram
Bromoform	Less Than 5.1	Micrograms per Kilogram
Bromomethane	Less Than 5.1	Micrograms per Kilogram
2-Butanone	Less Than 5.1	Micrograms per Kilogram
Carbon Disulfide	Less Than 5.1	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 5.1	Micrograms per Kilogram
Chlorobenzene	Less Than 5.1	Micrograms per Kilogram
Chloroethane	Less Than 5.1	Micrograms per Kilogram
Chloroform	Less Than 5.1	Micrograms per Kilogram
Chloromethane	Less Than 5.1	Micrograms per Kilogram
Cyclohexane	Less Than 5.1	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 5.1	Micrograms per Kilogram
Dibromochloromethane	Less Than 5.1	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 5.1	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 5.1	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 5.1	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 5.1	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 5.1	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 5.1	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 5.1	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 5.1	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 5.1	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 5.1	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 5.1	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 5.1	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 5.1	Micrograms per Kilogram

Sample: 3047-22
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ethyl Benzene	Less Than 5.1	Micrograms per Kilogram
2-Hexanone	Less Than 5.1	Micrograms per Kilogram
Isopropylbenzene	Less Than 5.1	Micrograms per Kilogram
Methyl Acetate	Less Than 5.1	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 10	Micrograms per Kilogram
Methylcyclohexane	Less Than 5.1	Micrograms per Kilogram
Methylene Chloride	Less Than 5.1	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 5.1	Micrograms per Kilogram
Naphthalene	Less Than 10	Micrograms per Kilogram
Styrene	Less Than 5.1	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 5.1	Micrograms per Kilogram
Tetrachloroethene	Less Than 5.1	Micrograms per Kilogram
Toluene	Less Than 5.1	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 5.1	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 5.1	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 5.1	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 5.1	Micrograms per Kilogram
Trichloroethene	Less Than 5.1	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 5.1	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 5.1	Micrograms per Kilogram
Vinyl Chloride	Less Than 5.1	Micrograms per Kilogram
m and/or p-Xylene	Less Than 5.1	Micrograms per Kilogram
o-Xylene	Less Than 5.1	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-23
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-23. This sample was collected on 06/12/2006 at the location described as: Sediment sample - 2, background NNW of treatment. If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-23 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.027	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	10800	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	Less Than 5	Milligrams per Kilogram

Sample: 3047-23
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	173	Milligrams per Kilogram
Beryllium	Less Than 1	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	4610	Milligrams per Kilogram
Chromium	Approximately 12.9	Milligrams per Kilogram
Cobalt	3.06	Milligrams per Kilogram
Copper	12.6	Milligrams per Kilogram
Iron	13100	Milligrams per Kilogram
Lead	12.4	Milligrams per Kilogram
Magnesium	2600	Milligrams per Kilogram
Manganese	253	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	12.4	Milligrams per Kilogram
Potassium	862	Milligrams per Kilogram
Selenium	Less Than 10	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	104	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	24.1	Milligrams per Kilogram
Zinc	39.1	Milligrams per Kilogram

Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than 24	Micrograms per Kilogram
Aroclor 1221	Less Than 24	Micrograms per Kilogram
Aroclor 1232	Less Than 24	Micrograms per Kilogram
Aroclor 1242	Less Than 24	Micrograms per Kilogram
Aroclor 1248	Less Than 24	Micrograms per Kilogram
Aroclor 1254	Less Than 12	Micrograms per Kilogram
Aroclor 1260	Less Than 12	Micrograms per Kilogram

Percent Solid

Solids, percent	80.8	Percent

Perchlorate in Soil by Ion Chromatography (IC)

Perchlorate	Less Than 0.020	Milligrams per Kilogram

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame

Sample: 3047-23
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	Less Than 49	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 62	Micrograms per Kilogram
Volatile Organic Compounds (VOCs) in Solid Matrices by Gas Chromatography and Mass Selective Detection (GC/MS)		
Acetone	Less Than 5.0	Micrograms per Kilogram
Benzene	Less Than 5.0	Micrograms per Kilogram
Bromodichloromethane	Less Than 5.0	Micrograms per Kilogram
Bromoform	Less Than 5.0	Micrograms per Kilogram
Bromomethane	Less Than 5.0	Micrograms per Kilogram
2-Butanone	Less Than 5.0	Micrograms per Kilogram
Carbon Disulfide	Less Than 5.0	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 5.0	Micrograms per Kilogram
Chlorobenzene	Less Than 5.0	Micrograms per Kilogram
Chloroethane	Less Than 5.0	Micrograms per Kilogram
Chloroform	Less Than 5.0	Micrograms per Kilogram
Chloromethane	Less Than 5.0	Micrograms per Kilogram
Cyclohexane	Less Than 5.0	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 5.0	Micrograms per Kilogram
Dibromochloromethane	Less Than 5.0	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 5.0	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 5.0	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 5.0	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 5.0	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 5.0	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 5.0	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 5.0	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 5.0	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 5.0	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 5.0	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 5.0	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 5.0	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 5.0	Micrograms per Kilogram

Sample: 3047-23
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ethyl Benzene	Less Than 5.0	Micrograms per Kilogram
2-Hexanone	Less Than 5.0	Micrograms per Kilogram
Isopropylbenzene	Less Than 5.0	Micrograms per Kilogram
Methyl Acetate	Less Than 5.0	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 10	Micrograms per Kilogram
Methylcyclohexane	Less Than 5.0	Micrograms per Kilogram
Methylene Chloride	Less Than 5.0	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 5.0	Micrograms per Kilogram
Naphthalene	Less Than 10	Micrograms per Kilogram
Styrene	Less Than 5.0	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 5.0	Micrograms per Kilogram
Tetrachloroethene	Less Than 5.0	Micrograms per Kilogram
Toluene	Less Than 5.0	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 5.0	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 5.0	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 5.0	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 5.0	Micrograms per Kilogram
Trichloroethene	Less Than 5.0	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 5.0	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 5.0	Micrograms per Kilogram
Vinyl Chloride	Less Than 5.0	Micrograms per Kilogram
m and/or p-Xylene	Less Than 5.0	Micrograms per Kilogram
o-Xylene	Less Than 5.0	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-24
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-24. This sample was collected on 06/13/2006 at the location described as: Sediment sample - 3, Drainage South of airport. If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-24 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.078	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	7210	Milligrams per Kilogram
Antimony	Less Than 2.25	Milligrams per Kilogram
Arsenic	Less Than 5	Milligrams per Kilogram

Sample: 3047-24
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	168	Milligrams per Kilogram
Beryllium	Less Than 1	Milligrams per Kilogram
Cadmium	Less Than 1	Milligrams per Kilogram
Calcium	31400	Milligrams per Kilogram
Chromium	Approximately 18.5	Milligrams per Kilogram
Cobalt	11.6	Milligrams per Kilogram
Copper	29.6	Milligrams per Kilogram
Iron	15700	Milligrams per Kilogram
Lead	165	Milligrams per Kilogram
Magnesium	3840	Milligrams per Kilogram
Manganese	1000	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	18.3	Milligrams per Kilogram
Potassium	606	Milligrams per Kilogram
Selenium	16.5	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	145	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	21.3	Milligrams per Kilogram
Zinc	162	Milligrams per Kilogram

Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than 22	Micrograms per Kilogram
Aroclor 1221	Less Than 22	Micrograms per Kilogram
Aroclor 1232	Less Than 22	Micrograms per Kilogram
Aroclor 1242	Less Than 22	Micrograms per Kilogram
Aroclor 1248	Less Than 22	Micrograms per Kilogram
Aroclor 1254	Less Than 11	Micrograms per Kilogram
Aroclor 1260	Less Than 11	Micrograms per Kilogram

Percent Solid

Solids, percent	71.1	Percent

Perchlorate in Soil by Ion Chromatography (IC)

Perchlorate	Less Than 0.020	Milligrams per Kilogram

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame

Sample: 3047-24
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	100	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 70	Micrograms per Kilogram
Volatile Organic Compounds (VOCs) in Solid Matrices by Gas Chromatography and Mass Selective Detection (GC/MS)		
Acetone	8.8	Micrograms per Kilogram
Benzene	Less Than 5.5	Micrograms per Kilogram
Bromodichloromethane	Less Than 5.5	Micrograms per Kilogram
Bromoform	Less Than 5.5	Micrograms per Kilogram
Bromomethane	Less Than 5.5	Micrograms per Kilogram
2-Butanone	Less Than 5.5	Micrograms per Kilogram
Carbon Disulfide	Less Than 5.5	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 5.5	Micrograms per Kilogram
Chlorobenzene	Less Than 5.5	Micrograms per Kilogram
Chloroethane	Less Than 5.5	Micrograms per Kilogram
Chloroform	Less Than 5.5	Micrograms per Kilogram
Chloromethane	Less Than 5.5	Micrograms per Kilogram
Cyclohexane	Less Than 5.5	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 5.5	Micrograms per Kilogram
Dibromochloromethane	Less Than 5.5	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 5.5	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 5.5	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 5.5	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 5.5	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 5.5	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 5.5	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 5.5	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 5.5	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 5.5	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 5.5	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 5.5	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 5.5	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 5.5	Micrograms per Kilogram

Sample: 3047-24
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ethyl Benzene	Less Than 5.5	Micrograms per Kilogram
2-Hexanone	Less Than 5.5	Micrograms per Kilogram
Isopropylbenzene	Less Than 5.5	Micrograms per Kilogram
Methyl Acetate	Less Than 5.5	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 11	Micrograms per Kilogram
Methylcyclohexane	Less Than 5.5	Micrograms per Kilogram
Methylene Chloride	Less Than 5.5	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 5.5	Micrograms per Kilogram
Naphthalene	Less Than 11	Micrograms per Kilogram
Styrene	Less Than 5.5	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 5.5	Micrograms per Kilogram
Tetrachloroethene	Less Than 5.5	Micrograms per Kilogram
Toluene	Less Than 5.5	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 5.5	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 5.5	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 5.5	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 5.5	Micrograms per Kilogram
Trichloroethene	Less Than 5.5	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 5.5	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 5.5	Micrograms per Kilogram
Vinyl Chloride	Less Than 5.5	Micrograms per Kilogram
m and/or p-Xylene	Less Than 5.5	Micrograms per Kilogram
o-Xylene	Less Than 5.5	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-24-FD
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-24-FD. This sample was collected on 06/13/2006 at the location described as: Sediment sample - 3/Field Duplicate of sample 24. If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-24-FD for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Soil by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 64	Micrograms per Kilogram
4-Amino-2,6-dinitrotoluene	Less Than 107	Micrograms per Kilogram
3,5-Dinitroaniline	Less Than 500	Micrograms per Kilogram
1,3-Dinitrobenzene	Less Than 69	Micrograms per Kilogram
2,4-Dinitrotoluene	Less Than 146	Micrograms per Kilogram
2,6-Dinitrotoluene	Less Than 199	Micrograms per Kilogram
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 102	Micrograms per Kilogram
Nitrobenzene	Less Than 42	Micrograms per Kilogram
Nitroglycerine	Less Than 500	Micrograms per Kilogram
2-Nitrotoluene	Less Than 102	Micrograms per Kilogram
3-Nitrotoluene	Less Than 89	Micrograms per Kilogram
4-Nitrotoluene	Less Than 162	Micrograms per Kilogram
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 394	Micrograms per Kilogram
Pentaerythritoltetranitrate	Less Than 545	Micrograms per Kilogram
1,3,5-Trinitrobenzene	Less Than 92	Micrograms per Kilogram
2,4,6-Trinitrophenylmethylnitramine	Less Than 134	Micrograms per Kilogram
2,4,6-Trinitrotoluene	Less Than 100	Micrograms per Kilogram
Mercury in Soil or Sediment		
Mercury	0.086	Milligrams per Kilogram
Metals in Soil by Inductively Coupled Argon Plasma (ICP)		
Aluminum	5250	Milligrams per Kilogram
Antimony	Less Than 2	Milligrams per Kilogram
Arsenic	Less Than 5	Milligrams per Kilogram

Sample: 3047-24-FD
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	96.6	Milligrams per Kilogram
Beryllium	Less Than 1	Milligrams per Kilogram
Cadmium	2.32	Milligrams per Kilogram
Calcium	50400	Milligrams per Kilogram
Chromium	Approximately 13.2	Milligrams per Kilogram
Cobalt	6.47	Milligrams per Kilogram
Copper	31.5	Milligrams per Kilogram
Iron	19200	Milligrams per Kilogram
Lead	51.8	Milligrams per Kilogram
Magnesium	3820	Milligrams per Kilogram
Manganese	450	Milligrams per Kilogram
Molybdenum	Less Than 2	Milligrams per Kilogram
Nickel	13.1	Milligrams per Kilogram
Potassium	496	Milligrams per Kilogram
Selenium	13.0	Milligrams per Kilogram
Silver	Less Than 2	Milligrams per Kilogram
Sodium	87.9	Milligrams per Kilogram
Thallium	Less Than 10	Milligrams per Kilogram
Vanadium	13.9	Milligrams per Kilogram
Zinc	188	Milligrams per Kilogram
Polychlorinated Biphenyls (PCBs) in Soil by Gas Chromotography and Electron Capture Detection (GC/EC)		
Aroclor 1016	Less Than 20	Micrograms per Kilogram
Aroclor 1221	Less Than 20	Micrograms per Kilogram
Aroclor 1232	Less Than 20	Micrograms per Kilogram
Aroclor 1242	Less Than 20	Micrograms per Kilogram
Aroclor 1248	Less Than 20	Micrograms per Kilogram
Aroclor 1254	Less Than 10	Micrograms per Kilogram
Aroclor 1260	Less Than 10	Micrograms per Kilogram
Percent Solid		
Solids, percent	78.0	Percent
Perchlorate in Soil by Ion Chromatography (IC)		
Perchlorate	Less Than 0.020	Milligrams per Kilogram
Semi-volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Flame		

Sample: 3047-24-FD
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ionization Detection (GC/FID)		
Extractable TPH	72	Milligrams per Kilogram
Volatile Total Petroleum Hydrocarbon (TPH) in Soil by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 65	Micrograms per Kilogram
Volatile Organic Compounds (VOCs) in Solid Matrices by Gas Chromatography and Mass Selective Detection (GC/MS)		
Acetone	6.3	Micrograms per Kilogram
Benzene	Less Than 4.4	Micrograms per Kilogram
Bromodichloromethane	Less Than 4.4	Micrograms per Kilogram
Bromoform	Less Than 4.4	Micrograms per Kilogram
Bromomethane	Less Than 4.4	Micrograms per Kilogram
2-Butanone	Less Than 4.4	Micrograms per Kilogram
Carbon Disulfide	Less Than 4.4	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 4.4	Micrograms per Kilogram
Chlorobenzene	Less Than 4.4	Micrograms per Kilogram
Chloroethane	Less Than 4.4	Micrograms per Kilogram
Chloroform	Less Than 4.4	Micrograms per Kilogram
Chloromethane	Less Than 4.4	Micrograms per Kilogram
Cyclohexane	Less Than 4.4	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 4.4	Micrograms per Kilogram
Dibromochloromethane	Less Than 4.4	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 4.4	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 4.4	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 4.4	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 4.4	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 4.4	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 4.4	Micrograms per Kilogram
1,2-Dichloroethane	Less Than 4.4	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 4.4	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 4.4	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 4.4	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 4.4	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 4.4	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 4.4	Micrograms per Kilogram

Sample: 3047-24-FD
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Ethyl Benzene	Less Than 4.4	Micrograms per Kilogram
2-Hexanone	Less Than 4.4	Micrograms per Kilogram
Isopropylbenzene	Less Than 4.4	Micrograms per Kilogram
Methyl Acetate	Less Than 4.4	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 8.8	Micrograms per Kilogram
Methylcyclohexane	Less Than 4.4	Micrograms per Kilogram
Methylene Chloride	Less Than 4.4	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 4.4	Micrograms per Kilogram
Naphthalene	Less Than 8.8	Micrograms per Kilogram
Styrene	Less Than 4.4	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 4.4	Micrograms per Kilogram
Tetrachloroethene	Less Than 4.4	Micrograms per Kilogram
Toluene	Less Than 4.4	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 4.4	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 4.4	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 4.4	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 4.4	Micrograms per Kilogram
Trichloroethene	Less Than 4.4	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 4.4	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 4.4	Micrograms per Kilogram
Vinyl Chloride	Less Than 4.4	Micrograms per Kilogram
m and/or p-Xylene	Less Than 4.4	Micrograms per Kilogram
o-Xylene	Less Than 4.4	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-27-FB
Project ID: RKOTTEXNAS

These are the results from the analysis of solid sample number 3047-27-FB. This sample was collected on 06/12/2006 at the location described as: Sediment VOA Trip Blank sample. If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-27-FB for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Percent Solid		
Solids, percent	96.6	Percent
Volatile Organic Compounds (VOCs) in Solid Matrices by Gas Chromatography and Mass Selective Detection (GC/MS)		
Acetone	28	Micrograms per Kilogram
Benzene	Less Than 4.8	Micrograms per Kilogram
Bromodichloromethane	Less Than 4.8	Micrograms per Kilogram
Bromoform	Less Than 4.8	Micrograms per Kilogram
Bromomethane	Less Than 4.8	Micrograms per Kilogram
2-Butanone	Approximately 5.5	Micrograms per Kilogram
Carbon Disulfide	Less Than 4.8	Micrograms per Kilogram
Carbon Tetrachloride	Less Than 4.8	Micrograms per Kilogram
Chlorobenzene	Less Than 4.8	Micrograms per Kilogram
Chloroethane	Less Than 4.8	Micrograms per Kilogram
Chloroform	Less Than 4.8	Micrograms per Kilogram
Chloromethane	Less Than 4.8	Micrograms per Kilogram
Cyclohexane	Less Than 4.8	Micrograms per Kilogram
1,2-Dibromo-3-Chloropropane	Less Than 4.8	Micrograms per Kilogram
Dibromochloromethane	Less Than 4.8	Micrograms per Kilogram
1,2-Dibromoethane	Less Than 4.8	Micrograms per Kilogram
1,2-Dichlorobenzene	Less Than 4.8	Micrograms per Kilogram
1,3-Dichlorobenzene	Less Than 4.8	Micrograms per Kilogram
1,4-Dichlorobenzene	Less Than 4.8	Micrograms per Kilogram
Dichlorodifluoromethane	Less Than 4.8	Micrograms per Kilogram
1,1-Dichloroethane	Less Than 4.8	Micrograms per Kilogram

Sample: 3047-27-FB
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
1,2-Dichloroethane	Less Than 4.8	Micrograms per Kilogram
1,1-Dichloroethene	Less Than 4.8	Micrograms per Kilogram
cis-1,2-Dichloroethene	Less Than 4.8	Micrograms per Kilogram
trans-1,2-Dichloroethene	Less Than 4.8	Micrograms per Kilogram
1,2-Dichloropropane	Less Than 4.8	Micrograms per Kilogram
cis-1,3-Dichloropropene	Less Than 4.8	Micrograms per Kilogram
trans-1,3-Dichloropropene	Less Than 4.8	Micrograms per Kilogram
Ethyl Benzene	Less Than 4.8	Micrograms per Kilogram
2-Hexanone	Less Than 4.8	Micrograms per Kilogram
Isopropylbenzene	Less Than 4.8	Micrograms per Kilogram
Methyl Acetate	Less Than 4.8	Micrograms per Kilogram
Methyl tert-butyl ether	Less Than 9.5	Micrograms per Kilogram
Methylcyclohexane	Less Than 4.8	Micrograms per Kilogram
Methylene Chloride	Less Than 4.8	Micrograms per Kilogram
4-Methyl-2-Pentanone	Less Than 4.8	Micrograms per Kilogram
Naphthalene	Less Than 9.5	Micrograms per Kilogram
Styrene	Less Than 4.8	Micrograms per Kilogram
1,1,2,2-Tetrachloroethane	Less Than 4.8	Micrograms per Kilogram
Tetrachloroethene	Less Than 4.8	Micrograms per Kilogram
Toluene	Less Than 4.8	Micrograms per Kilogram
1,2,3-Trichlorobenzene	Less Than 4.8	Micrograms per Kilogram
1,2,4-Trichlorobenzene	Less Than 4.8	Micrograms per Kilogram
1,1,1-Trichloroethane	Less Than 4.8	Micrograms per Kilogram
1,1,2-Trichloroethane	Less Than 4.8	Micrograms per Kilogram
Trichloroethene	Less Than 4.8	Micrograms per Kilogram
Trichlorofluoromethane	Less Than 4.8	Micrograms per Kilogram
1,1,2-Trichlorotrifluoroethane	Less Than 4.8	Micrograms per Kilogram
Vinyl Chloride	Less Than 4.8	Micrograms per Kilogram
m and/or p-Xylene	Less Than 4.8	Micrograms per Kilogram
o-Xylene	Less Than 4.8	Micrograms per Kilogram

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-107-FB
Project ID: RKOTTEXNAS

These are the results from the analysis of water sample number 3047-107-FB. This sample was collected on 06/08/2006 at the location described as: Temp. Well GW LDL VOA/TPH (OA-1) Trip Blank sample. If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-107-FB for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Volatile Total Petroleum Hydrocarbon (TPH) in Water by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 50	Micrograms per Liter
Volatile Organic Compounds (VOCs) in Water by Gas Chromatography and Mass Selective Detection (GC/MS) for Low Detection Limits		
Acetone	Less Than 5.0	Micrograms per Liter
Benzene	Less Than 1.0	Micrograms per Liter
Bromodichloromethane	Less Than 1.0	Micrograms per Liter
Bromoform	Less Than 1.0	Micrograms per Liter
Bromomethane	Less Than 1.0	Micrograms per Liter
2-Butanone	Less Than 5.0	Micrograms per Liter
Carbon Disulfide	Less Than 1.0	Micrograms per Liter
Carbon Tetrachloride	Less Than 1.0	Micrograms per Liter
Chlorobenzene	Less Than 1.0	Micrograms per Liter
Chloroethane	Less Than 1.0	Micrograms per Liter
Chloroform	Less Than 1.0	Micrograms per Liter
Chloromethane	Less Than 1.0	Micrograms per Liter
Cyclohexane	Less Than 1.0	Micrograms per Liter
1,2-Dibromo-3-Chloropropane	Less Than 5.0	Micrograms per Liter
Dibromochloromethane	Less Than 1.0	Micrograms per Liter
1,2-Dibromoethane	Less Than 1.0	Micrograms per Liter
1,2-Dichlorobenzene	Less Than 1.0	Micrograms per Liter
1,3-Dichlorobenzene	Less Than 1.0	Micrograms per Liter
1,4-Dichlorobenzene	Less Than 1.0	Micrograms per Liter
Dichlorodifluoromethane	Less Than 1.0	Micrograms per Liter

Sample: 3047-107-FB
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
1,1-Dichloroethane	Less Than 1.0	Micrograms per Liter
1,2-Dichloroethane	Less Than 1.0	Micrograms per Liter
1,1-Dichloroethene	Less Than 1.0	Micrograms per Liter
cis-1,2-Dichloroethene	Less Than 1.0	Micrograms per Liter
trans-1,2-Dichloroethene	Less Than 1.0	Micrograms per Liter
1,2-Dichloropropane	Less Than 1.0	Micrograms per Liter
cis-1,3-Dichloropropene	Less Than 1.0	Micrograms per Liter
trans-1,3-Dichloropropene	Less Than 1.0	Micrograms per Liter
Ethyl Benzene	Less Than 1.0	Micrograms per Liter
2-Hexanone	Less Than 2.0	Micrograms per Liter
Isopropylbenzene	Less Than 1.0	Micrograms per Liter
Methyl Acetate	Less Than 5.0	Micrograms per Liter
Methyl tert-butyl ether	Less Than 1.0	Micrograms per Liter
Methylcyclohexane	Less Than 1.0	Micrograms per Liter
Methylene Chloride	Less Than 1.0	Micrograms per Liter
4-Methyl-2-Pentanone	Less Than 1.0	Micrograms per Liter
Naphthalene	Less Than 2.0	Micrograms per Liter
Styrene	Less Than 1.0	Micrograms per Liter
1,1,2,2-Tetrachloroethane	Less Than 5.0	Micrograms per Liter
Tetrachloroethene	Less Than 1.0	Micrograms per Liter
Toluene	Less Than 1.0	Micrograms per Liter
1,2,3-Trichlorobenzene	Less Than 1.0	Micrograms per Liter
1,2,4-Trichlorobenzene	Less Than 1.0	Micrograms per Liter
1,1,1-Trichloroethane	Less Than 1.0	Micrograms per Liter
1,1,2-Trichloroethane	Less Than 1.0	Micrograms per Liter
Trichloroethene	Less Than 1.0	Micrograms per Liter
Trichlorofluoromethane	Less Than 1.0	Micrograms per Liter
1,1,2-Trichlorotrifluoroethane	Less Than 1.0	Micrograms per Liter
Vinyl Chloride	Less Than 1.0	Micrograms per Liter
m and/or p-Xylene	Less Than 1.0	Micrograms per Liter
o-Xylene	Less Than 1.0	Micrograms per Liter

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-207-FB
Project ID: RKOTTEXNAS

These are the results from the analysis of water sample number 3047-207-FB. This sample was collected on 06/13/2006 at the location described as: DW Field Blank sample. If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-207-FB for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Water by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 0.49	Micrograms per Liter
4-Amino-2,6-dinitrotoluene	Less Than 0.48	Micrograms per Liter
3,5-Dinitroaniline	Less Than 0.65	Micrograms per Liter
1,3-Dinitrobenzene	Less Than 0.42	Micrograms per Liter
2,4-Dinitrotoluene	Less Than 0.48	Micrograms per Liter
2,6-Dinitrotoluene	Less Than 0.53	Micrograms per Liter
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 0.45	Micrograms per Liter
Nitrobenzene	1.2	Micrograms per Liter
Nitroglycerine	Less Than 0.65	Micrograms per Liter
2-Nitrotoluene	Less Than 0.5	Micrograms per Liter
3-Nitrotoluene	Less Than 0.41	Micrograms per Liter
4-Nitrotoluene	Less Than 0.52	Micrograms per Liter
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 0.47	Micrograms per Liter
Pentaerythritoltetranitrate	Less Than 1.2	Micrograms per Liter
1,3,5-Trinitrobenzene	Less Than 0.53	Micrograms per Liter
2,4,6-Trinitrophenylmethylnitramine	Less Than 0.48	Micrograms per Liter
2,4,6-Trinitrotoluene	Less Than 0.61	Micrograms per Liter
Mercury in Water		
Mercury	Less Than 0.20	Micrograms per Liter
Metals in Water by Inductively Coupled Argon Plasma (ICP)		
Aluminum	Less Than 50	Micrograms per Liter
Antimony	Less Than 50	Micrograms per Liter
Arsenic	Less Than 25	Micrograms per Liter

Sample: 3047-207-FB
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	Less Than 5	Micrograms per Liter
Beryllium	Less Than 3	Micrograms per Liter
Cadmium	Less Than 3	Micrograms per Liter
Calcium	Less Than 2	Milligrams per Liter
Chromium	Less Than 15	Micrograms per Liter
Cobalt	Less Than 10	Micrograms per Liter
Copper	Less Than 5	Micrograms per Liter
Iron	Less Than 50	Micrograms per Liter
Lead	Less Than 50	Micrograms per Liter
Magnesium	Less Than 2	Milligrams per Liter
Manganese	Less Than 5	Micrograms per Liter
Molybdenum	Less Than 15	Micrograms per Liter
Nickel	Less Than 20	Micrograms per Liter
Potassium	Less Than 2	Milligrams per Liter
Selenium	Less Than 50	Micrograms per Liter
Silver	Less Than 25	Micrograms per Liter
Sodium	Less Than 5	Milligrams per Liter
Thallium	Less Than 50	Micrograms per Liter
Titanium	Less Than 20	Micrograms per Liter
Vanadium	Less Than 10	Micrograms per Liter
Zinc	Less Than 25	Micrograms per Liter
Perchlorate in Water by Ion Chromatography		
Perchlorate	Less Than 2.00	Micrograms per Liter
Pesticides in Water by Gas Chromatography and Electron Capture Detection (GC/EC)		
Aroclor 1016	Less Than 1	Micrograms per Liter
Aroclor 1221	Less Than 1	Micrograms per Liter
Aroclor 1232	Less Than 1	Micrograms per Liter
Aroclor 1242	Less Than 0.8	Micrograms per Liter
Aroclor 1248	Less Than 0.8	Micrograms per Liter
Aroclor 1254	Less Than 0.6	Micrograms per Liter
Aroclor 1260	Less Than 0.4	Micrograms per Liter
Semi-volatile Total Petroleum Hydrocarbon (TPH) in Water by Gas Chromatography and Flame Ionization Detection (GC/FID)		
Extractable TPH	Less Than 0.10	Milligrams per Liter

Sample: 3047-207-FB
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Volatile Total Petroleum Hydrocarbon (TPH) in Water by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 50	Micrograms per Liter
Volatile Organic Compounds (VOCs) in Drinking Water by Gas Chromatography and Mass Selective Detection (GC/MS)		
Acetone	Less Than 10	Micrograms per Liter
Benzene	Less Than 0.50	Micrograms per Liter
Bromobenzene	Less Than 0.50	Micrograms per Liter
Bromochloromethane	0.69	Micrograms per Liter
Bromodichloromethane	Less Than 0.50	Micrograms per Liter
Bromoform	Less Than 0.50	Micrograms per Liter
Bromomethane	Less Than 1.0	Micrograms per Liter
2-Butanone	Less Than 5.0	Micrograms per Liter
n-Butylbenzene	Less Than 0.50	Micrograms per Liter
sec-Butylbenzene	Less Than 0.50	Micrograms per Liter
tert-Butylbenzene	Less Than 0.50	Micrograms per Liter
Carbon Disulfide	Less Than 0.50	Micrograms per Liter
Carbon Tetrachloride	Less Than 0.50	Micrograms per Liter
Chlorobenzene	Less Than 0.50	Micrograms per Liter
Chloroethane	Less Than 0.50	Micrograms per Liter
Chloroform	1.2	Micrograms per Liter
Chloromethane	Less Than 1.0	Micrograms per Liter
2-Chlorotoluene	Less Than 0.50	Micrograms per Liter
4-Chlorotoluene	Less Than 0.50	Micrograms per Liter
1,2-Dibromo-3-Chloropropane	Less Than 1.0	Micrograms per Liter
Dibromochloromethane	Less Than 0.50	Micrograms per Liter
1,2-Dibromoethane	Less Than 0.50	Micrograms per Liter
Dibromomethane	Less Than 0.50	Micrograms per Liter
1,2-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,3-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,4-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
Dichlorodifluoromethane	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethane	Less Than 0.50	Micrograms per Liter
1,2-Dichloroethane	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethene	Less Than 0.50	Micrograms per Liter

Sample: 3047-207-FB
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
cis-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
trans-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
1,2-Dichloropropane	Less Than 0.50	Micrograms per Liter
1,3-Dichloropropane	Less Than 1.0	Micrograms per Liter
2,2-Dichloropropane	Less Than 0.50	Micrograms per Liter
1,1-Dichloropropene	Less Than 0.50	Micrograms per Liter
cis-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
trans-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
Ethyl Benzene	Less Than 0.50	Micrograms per Liter
Hexachlorobutadiene	Less Than 0.50	Micrograms per Liter
2-Hexanone	Less Than 5.0	Micrograms per Liter
Isopropylbenzene	Less Than 0.50	Micrograms per Liter
p-Isopropyltoluene	Less Than 0.50	Micrograms per Liter
Methylene Chloride	1.6	Micrograms per Liter
4-Methyl-2-Pentanone	Less Than 5.0	Micrograms per Liter
Naphthalene	Less Than 1.0	Micrograms per Liter
n-Propylbenzene	Less Than 0.50	Micrograms per Liter
Styrene	Less Than 0.50	Micrograms per Liter
1,1,1,2-Tetrachloroethane	Less Than 0.50	Micrograms per Liter
1,1,2,2-Tetrachloroethane	Less Than 1.0	Micrograms per Liter
Tetrachloroethene	Less Than 0.50	Micrograms per Liter
Toluene	Less Than 0.50	Micrograms per Liter
1,2,3-Trichlorobenzene	Less Than 0.50	Micrograms per Liter
1,2,4-Trichlorobenzene	Less Than 0.50	Micrograms per Liter
1,1,1-Trichloroethane	Less Than 0.50	Micrograms per Liter
1,1,2-Trichloroethane	Less Than 0.50	Micrograms per Liter
Trichloroethene	Less Than 0.50	Micrograms per Liter
Trichlorofluoromethane	Less Than 1.0	Micrograms per Liter
1,2,3-Trichloropropane	Less Than 0.50	Micrograms per Liter
1,2,4-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
1,3,5-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
Vinyl Chloride	Less Than 0.50	Micrograms per Liter
m and/or p-Xylene	Less Than 0.50	Micrograms per Liter
o-Xylene	Less Than 0.50	Micrograms per Liter

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-208-FB
Project ID: RKOTTEXNAS

These are the results from the analysis of water sample number 3047-208-FB. This sample was collected on 06/08/2006 at the location described as: DW VOA/TPH (OA-1) Trip Blank sample. If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-208-FB for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Volatile Total Petroleum Hydrocarbon (TPH) in Water by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 50	Micrograms per Liter
Volatile Organic Compounds (VOCs) in Drinking Water by Gas Chromatography and Mass Selective Detection (GC/MS)		
Acetone	Less Than 10	Micrograms per Liter
Benzene	Less Than 0.50	Micrograms per Liter
Bromobenzene	Less Than 0.50	Micrograms per Liter
Bromochloromethane	Less Than 0.50	Micrograms per Liter
Bromodichloromethane	Less Than 0.50	Micrograms per Liter
Bromoform	Less Than 0.50	Micrograms per Liter
Bromomethane	Less Than 1.0	Micrograms per Liter
2-Butanone	Less Than 5.0	Micrograms per Liter
n-Butylbenzene	Less Than 0.50	Micrograms per Liter
sec-Butylbenzene	Less Than 0.50	Micrograms per Liter
tert-Butylbenzene	Less Than 0.50	Micrograms per Liter
Carbon Disulfide	Less Than 0.50	Micrograms per Liter
Carbon Tetrachloride	Less Than 0.50	Micrograms per Liter
Chlorobenzene	Less Than 0.50	Micrograms per Liter
Chloroethane	Less Than 0.50	Micrograms per Liter
Chloroform	Less Than 0.50	Micrograms per Liter
Chloromethane	Less Than 1.0	Micrograms per Liter
2-Chlorotoluene	Less Than 0.50	Micrograms per Liter
4-Chlorotoluene	Less Than 0.50	Micrograms per Liter
1,2-Dibromo-3-Chloropropane	Less Than 1.0	Micrograms per Liter

Sample: 3047-208-FB
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Dibromochloromethane	Less Than 0.50	Micrograms per Liter
1,2-Dibromoethane	Less Than 0.50	Micrograms per Liter
Dibromomethane	Less Than 0.50	Micrograms per Liter
1,2-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,3-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
1,4-Dichlorobenzene	Less Than 0.50	Micrograms per Liter
Dichlorodifluoromethane	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethane	Less Than 0.50	Micrograms per Liter
1,2-Dichloroethane	Less Than 0.50	Micrograms per Liter
1,1-Dichloroethene	Less Than 0.50	Micrograms per Liter
cis-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
trans-1,2-Dichloroethene	Less Than 0.50	Micrograms per Liter
1,2-Dichloropropane	Less Than 0.50	Micrograms per Liter
1,3-Dichloropropane	Less Than 1.0	Micrograms per Liter
2,2-Dichloropropane	Less Than 0.50	Micrograms per Liter
1,1-Dichloropropene	Less Than 0.50	Micrograms per Liter
cis-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
trans-1,3-Dichloropropene	Less Than 0.50	Micrograms per Liter
Ethyl Benzene	Less Than 0.50	Micrograms per Liter
Hexachlorobutadiene	Less Than 0.50	Micrograms per Liter
2-Hexanone	Less Than 5.0	Micrograms per Liter
Isopropylbenzene	Less Than 0.50	Micrograms per Liter
p-Isopropyltoluene	Less Than 0.50	Micrograms per Liter
Methylene Chloride	Less Than 0.50	Micrograms per Liter
4-Methyl-2-Pentanone	Less Than 5.0	Micrograms per Liter
Naphthalene	Less Than 1.0	Micrograms per Liter
n-Propylbenzene	Less Than 0.50	Micrograms per Liter
Styrene	Less Than 0.50	Micrograms per Liter
1,1,1,2-Tetrachloroethane	Less Than 0.50	Micrograms per Liter
1,1,2,2-Tetrachloroethane	Less Than 1.0	Micrograms per Liter
Tetrachloroethene	Less Than 0.50	Micrograms per Liter
Toluene	Less Than 0.50	Micrograms per Liter
1,2,3-Trichlorobenzene	Less Than 0.50	Micrograms per Liter
1,2,4-Trichlorobenzene	Less Than 0.50	Micrograms per Liter
1,1,1-Trichloroethane	Less Than 0.50	Micrograms per Liter

Sample: 3047-208-FB
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
1,1,2-Trichloroethane	Less Than 0.50	Micrograms per Liter
Trichloroethene	Less Than 0.50	Micrograms per Liter
Trichlorofluoromethane	Less Than 1.0	Micrograms per Liter
1,2,3-Trichloropropane	Less Than 0.50	Micrograms per Liter
1,2,4-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
1,3,5-Trimethylbenzene	Less Than 0.50	Micrograms per Liter
Vinyl Chloride	Less Than 0.50	Micrograms per Liter
m and/or p-Xylene	Less Than 0.50	Micrograms per Liter
o-Xylene	Less Than 0.50	Micrograms per Liter

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-301
Project ID: RKOTTEXNAS

These are the results from the analysis of water sample number 3047-301. This sample was collected on 06/13/2006 at the location described as: Surface water sample - 3 (South drainage from airport). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-301 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Water by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 0.49	Micrograms per Liter
4-Amino-2,6-dinitrotoluene	Less Than 0.48	Micrograms per Liter
3,5-Dinitroaniline	Less Than 0.65	Micrograms per Liter
1,3-Dinitrobenzene	Less Than 0.42	Micrograms per Liter
2,4-Dinitrotoluene	Less Than 0.48	Micrograms per Liter
2,6-Dinitrotoluene	Less Than 0.53	Micrograms per Liter
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 0.45	Micrograms per Liter
Nitrobenzene	Less Than 0.26	Micrograms per Liter
Nitroglycerine	Less Than 0.65	Micrograms per Liter
2-Nitrotoluene	Less Than 0.5	Micrograms per Liter
3-Nitrotoluene	Less Than 0.41	Micrograms per Liter
4-Nitrotoluene	Less Than 0.52	Micrograms per Liter
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 0.47	Micrograms per Liter
Pentaerythritoltetranitrate	Less Than 1.2	Micrograms per Liter
1,3,5-Trinitrobenzene	Less Than 0.53	Micrograms per Liter
2,4,6-Trinitrophenylmethylnitramine	Less Than 0.48	Micrograms per Liter
2,4,6-Trinitrotoluene	Less Than 0.61	Micrograms per Liter
Mercury in Water		
Mercury	Less Than 0.20	Micrograms per Liter
Metals in Water by Inductively Coupled Argon Plasma (ICP)		
Aluminum	156	Micrograms per Liter
Antimony	Less Than 50	Micrograms per Liter
Arsenic	Less Than 25	Micrograms per Liter

Sample: 3047-301
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	178	Micrograms per Liter
Beryllium	Less Than 3	Micrograms per Liter
Cadmium	Less Than 3	Micrograms per Liter
Calcium	96.1	Milligrams per Liter
Chromium	Less Than 15	Micrograms per Liter
Cobalt	Less Than 10	Micrograms per Liter
Copper	Less Than 5	Micrograms per Liter
Iron	296	Micrograms per Liter
Lead	Less Than 50	Micrograms per Liter
Magnesium	31.7	Milligrams per Liter
Manganese	90.3	Micrograms per Liter
Molybdenum	Less Than 15	Micrograms per Liter
Nickel	Less Than 20	Micrograms per Liter
Potassium	Less Than 2	Milligrams per Liter
Selenium	Less Than 50	Micrograms per Liter
Silver	Less Than 25	Micrograms per Liter
Sodium	17.1	Milligrams per Liter
Thallium	Less Than 50	Micrograms per Liter
Titanium	Less Than 20	Micrograms per Liter
Vanadium	Less Than 10	Micrograms per Liter
Zinc	Less Than 25	Micrograms per Liter
Perchlorate in Water by Ion Chromatography		
Perchlorate	Less Than 2.00	Micrograms per Liter
Pesticides in Water by Gas Chromatography and Electron Capture Detection (GC/EC)		
Aroclor 1016	Less Than 1	Micrograms per Liter
Aroclor 1221	Less Than 1	Micrograms per Liter
Aroclor 1232	Less Than 1	Micrograms per Liter
Aroclor 1242	Less Than 0.8	Micrograms per Liter
Aroclor 1248	Less Than 0.8	Micrograms per Liter
Aroclor 1254	Less Than 0.6	Micrograms per Liter
Aroclor 1260	Less Than 0.4	Micrograms per Liter
Semi-volatile Total Petroleum Hydrocarbon (TPH) in Water by Gas Chromatography and Flame Ionization Detection (GC/FID)		
Extractable TPH	0.12	Milligrams per Liter

Sample: 3047-301
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Volatile Total Petroleum Hydrocarbon (TPH) in Water by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 50	Micrograms per Liter
Volatile Organic Compounds (VOCs) in Water by Gas Chromatography and Mass Selective Detection (GC/MS) for Low Detection Limits		
Acetone	Less Than 5.0	Micrograms per Liter
Benzene	Less Than 1.0	Micrograms per Liter
Bromodichloromethane	Less Than 1.0	Micrograms per Liter
Bromoform	Less Than 1.0	Micrograms per Liter
Bromomethane	Less Than 1.0	Micrograms per Liter
2-Butanone	Less Than 5.0	Micrograms per Liter
Carbon Disulfide	Less Than 1.0	Micrograms per Liter
Carbon Tetrachloride	Less Than 1.0	Micrograms per Liter
Chlorobenzene	Less Than 1.0	Micrograms per Liter
Chloroethane	Less Than 1.0	Micrograms per Liter
Chloroform	Less Than 1.0	Micrograms per Liter
Chloromethane	Less Than 1.0	Micrograms per Liter
Cyclohexane	Less Than 1.0	Micrograms per Liter
1,2-Dibromo-3-Chloropropane	Less Than 5.0	Micrograms per Liter
Dibromochloromethane	Less Than 1.0	Micrograms per Liter
1,2-Dibromoethane	Less Than 1.0	Micrograms per Liter
1,2-Dichlorobenzene	Less Than 1.0	Micrograms per Liter
1,3-Dichlorobenzene	Less Than 1.0	Micrograms per Liter
1,4-Dichlorobenzene	Less Than 1.0	Micrograms per Liter
Dichlorodifluoromethane	Less Than 1.0	Micrograms per Liter
1,1-Dichloroethane	Less Than 1.0	Micrograms per Liter
1,2-Dichloroethane	Less Than 1.0	Micrograms per Liter
1,1-Dichloroethene	Less Than 1.0	Micrograms per Liter
cis-1,2-Dichloroethene	Less Than 1.0	Micrograms per Liter
trans-1,2-Dichloroethene	Less Than 1.0	Micrograms per Liter
1,2-Dichloropropane	Less Than 1.0	Micrograms per Liter
cis-1,3-Dichloropropene	Less Than 1.0	Micrograms per Liter
trans-1,3-Dichloropropene	Less Than 1.0	Micrograms per Liter
Ethyl Benzene	Less Than 1.0	Micrograms per Liter
2-Hexanone	Less Than 2.0	Micrograms per Liter

Sample: 3047-301
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Isopropylbenzene	Less Than 1.0	Micrograms per Liter
Methyl Acetate	Less Than 5.0	Micrograms per Liter
Methyl tert-butyl ether	Less Than 1.0	Micrograms per Liter
Methylcyclohexane	Less Than 1.0	Micrograms per Liter
Methylene Chloride	Less Than 1.0	Micrograms per Liter
4-Methyl-2-Pentanone	Less Than 1.0	Micrograms per Liter
Naphthalene	Less Than 2.0	Micrograms per Liter
Styrene	Less Than 1.0	Micrograms per Liter
1,1,2,2-Tetrachloroethane	Less Than 5.0	Micrograms per Liter
Tetrachloroethene	Less Than 1.0	Micrograms per Liter
Toluene	Less Than 1.0	Micrograms per Liter
1,2,3-Trichlorobenzene	Less Than 1.0	Micrograms per Liter
1,2,4-Trichlorobenzene	Less Than 1.0	Micrograms per Liter
1,1,1-Trichloroethane	Less Than 1.0	Micrograms per Liter
1,1,2-Trichloroethane	Less Than 1.0	Micrograms per Liter
Trichloroethene	Less Than 1.0	Micrograms per Liter
Trichlorofluoromethane	Less Than 1.0	Micrograms per Liter
1,1,2-Trichlorotrifluoroethane	Less Than 1.0	Micrograms per Liter
Vinyl Chloride	Less Than 1.0	Micrograms per Liter
m and/or p-Xylene	Less Than 1.0	Micrograms per Liter
o-Xylene	Less Than 1.0	Micrograms per Liter

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-301-FD
Project ID: RKOTTEXNAS

These are the results from the analysis of water sample number 3047-301-FD. This sample was collected on 06/13/2006 at the location described as: Surface water sample - 3/Field Duplicate of sample 301. If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-301-FD for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Water by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 0.49	Micrograms per Liter
4-Amino-2,6-dinitrotoluene	Less Than 0.48	Micrograms per Liter
3,5-Dinitroaniline	Less Than 0.65	Micrograms per Liter
1,3-Dinitrobenzene	Less Than 0.42	Micrograms per Liter
2,4-Dinitrotoluene	Less Than 0.48	Micrograms per Liter
2,6-Dinitrotoluene	Less Than 0.53	Micrograms per Liter
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 0.45	Micrograms per Liter
Nitrobenzene	Less Than 0.26	Micrograms per Liter
Nitroglycerine	Less Than 0.65	Micrograms per Liter
2-Nitrotoluene	Less Than 0.5	Micrograms per Liter
3-Nitrotoluene	Less Than 0.41	Micrograms per Liter
4-Nitrotoluene	Less Than 0.52	Micrograms per Liter
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 0.47	Micrograms per Liter
Pentaerythritoltetranitrate	Less Than 1.2	Micrograms per Liter
1,3,5-Trinitrobenzene	Less Than 0.53	Micrograms per Liter
2,4,6-Trinitrophenylmethylnitramine	Less Than 0.48	Micrograms per Liter
2,4,6-Trinitrotoluene	Less Than 0.61	Micrograms per Liter
Mercury in Water		
Mercury	Less Than 0.20	Micrograms per Liter
Metals in Water by Inductively Coupled Argon Plasma (ICP)		
Aluminum	160	Micrograms per Liter
Antimony	Less Than 50	Micrograms per Liter
Arsenic	Less Than 25	Micrograms per Liter

Sample: 3047-301-FD
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	175	Micrograms per Liter
Beryllium	Less Than 3	Micrograms per Liter
Cadmium	Less Than 3	Micrograms per Liter
Calcium	94.3	Milligrams per Liter
Chromium	Less Than 15	Micrograms per Liter
Cobalt	Less Than 10	Micrograms per Liter
Copper	Less Than 5	Micrograms per Liter
Iron	292	Micrograms per Liter
Lead	Less Than 50	Micrograms per Liter
Magnesium	31.1	Milligrams per Liter
Manganese	88.8	Micrograms per Liter
Molybdenum	Less Than 15	Micrograms per Liter
Nickel	Less Than 20	Micrograms per Liter
Potassium	Less Than 2	Milligrams per Liter
Selenium	Less Than 50	Micrograms per Liter
Silver	Less Than 25	Micrograms per Liter
Sodium	16.7	Milligrams per Liter
Thallium	Less Than 50	Micrograms per Liter
Titanium	Less Than 20	Micrograms per Liter
Vanadium	Less Than 10	Micrograms per Liter
Zinc	Less Than 25	Micrograms per Liter

Perchlorate in Water by Ion Chromatography

Perchlorate	Less Than 2.00	Micrograms per Liter

Pesticides in Water by Gas Chromatography and Electron Capture Detection (GC/EC)

Aroclor 1016	Less Than 1	Micrograms per Liter
Aroclor 1221	Less Than 1	Micrograms per Liter
Aroclor 1232	Less Than 1	Micrograms per Liter
Aroclor 1242	Less Than 0.8	Micrograms per Liter
Aroclor 1248	Less Than 0.8	Micrograms per Liter
Aroclor 1254	Less Than 0.6	Micrograms per Liter
Aroclor 1260	Less Than 0.4	Micrograms per Liter

Semi-volatile Total Petroleum Hydrocarbon (TPH) in Water by Gas Chromatography and Flame Ionization Detection (GC/FID)

Extractable TPH	0.11	Milligrams per Liter

Sample: 3047-301-FD
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Volatile Total Petroleum Hydrocarbon (TPH) in Water by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 50	Micrograms per Liter
Volatile Organic Compounds (VOCs) in Water by Gas Chromatography and Mass Selective Detection (GC/MS) for Low Detection Limits		
Acetone	Less Than 5.0	Micrograms per Liter
Benzene	Less Than 1.0	Micrograms per Liter
Bromodichloromethane	Less Than 1.0	Micrograms per Liter
Bromoform	Less Than 1.0	Micrograms per Liter
Bromomethane	Less Than 1.0	Micrograms per Liter
2-Butanone	Less Than 5.0	Micrograms per Liter
Carbon Disulfide	Less Than 1.0	Micrograms per Liter
Carbon Tetrachloride	Less Than 1.0	Micrograms per Liter
Chlorobenzene	Less Than 1.0	Micrograms per Liter
Chloroethane	Less Than 1.0	Micrograms per Liter
Chloroform	Less Than 1.0	Micrograms per Liter
Chloromethane	Less Than 1.0	Micrograms per Liter
Cyclohexane	Less Than 1.0	Micrograms per Liter
1,2-Dibromo-3-Chloropropane	Less Than 5.0	Micrograms per Liter
Dibromochloromethane	Less Than 1.0	Micrograms per Liter
1,2-Dibromoethane	Less Than 1.0	Micrograms per Liter
1,2-Dichlorobenzene	Less Than 1.0	Micrograms per Liter
1,3-Dichlorobenzene	Less Than 1.0	Micrograms per Liter
1,4-Dichlorobenzene	Less Than 1.0	Micrograms per Liter
Dichlorodifluoromethane	Less Than 1.0	Micrograms per Liter
1,1-Dichloroethane	Less Than 1.0	Micrograms per Liter
1,2-Dichloroethane	Less Than 1.0	Micrograms per Liter
1,1-Dichloroethene	Less Than 1.0	Micrograms per Liter
cis-1,2-Dichloroethene	Less Than 1.0	Micrograms per Liter
trans-1,2-Dichloroethene	Less Than 1.0	Micrograms per Liter
1,2-Dichloropropane	Less Than 1.0	Micrograms per Liter
cis-1,3-Dichloropropene	Less Than 1.0	Micrograms per Liter
trans-1,3-Dichloropropene	Less Than 1.0	Micrograms per Liter
Ethyl Benzene	Less Than 1.0	Micrograms per Liter
2-Hexanone	Less Than 2.0	Micrograms per Liter

Sample: 3047-301-FD
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Isopropylbenzene	Less Than 1.0	Micrograms per Liter
Methyl Acetate	Less Than 5.0	Micrograms per Liter
Methyl tert-butyl ether	Less Than 1.0	Micrograms per Liter
Methylcyclohexane	Less Than 1.0	Micrograms per Liter
Methylene Chloride	Less Than 1.0	Micrograms per Liter
4-Methyl-2-Pentanone	Less Than 1.0	Micrograms per Liter
Naphthalene	Less Than 2.0	Micrograms per Liter
Styrene	Less Than 1.0	Micrograms per Liter
1,1,2,2-Tetrachloroethane	Less Than 5.0	Micrograms per Liter
Tetrachloroethene	Less Than 1.0	Micrograms per Liter
Toluene	Less Than 1.0	Micrograms per Liter
1,2,3-Trichlorobenzene	Less Than 1.0	Micrograms per Liter
1,2,4-Trichlorobenzene	Less Than 1.0	Micrograms per Liter
1,1,1-Trichloroethane	Less Than 1.0	Micrograms per Liter
1,1,2-Trichloroethane	Less Than 1.0	Micrograms per Liter
Trichloroethene	Less Than 1.0	Micrograms per Liter
Trichlorofluoromethane	Less Than 1.0	Micrograms per Liter
1,1,2-Trichlorotrifluoroethane	Less Than 1.0	Micrograms per Liter
Vinyl Chloride	Less Than 1.0	Micrograms per Liter
m and/or p-Xylene	Less Than 1.0	Micrograms per Liter
o-Xylene	Less Than 1.0	Micrograms per Liter

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, Kansas 66101

08/03/2006

Results of Sample Analysis

Sample: 3047-303
Project ID: RKOTTEXNAS

These are the results from the analysis of water sample number 3047-303. This sample was collected on 06/14/2006 at the location described as: Surface water sample - 4 (Stream drainage from North of airport). If you have any questions about these results, contact Ron King at the above address or by calling 913-551-7568. Correspondence should refer to sample number 3047-303 for project: RKOTTEXNAS - Ottumwa (EX) NAS - PA sampling.

Analysis/Analyte	Amount Found	Units
Explosives in Water by Gas Chromatography with Electron Capture Detection (GC/ECD)		
2-Amino-4,6-dinitrotoluene	Less Than 0.49	Micrograms per Liter
4-Amino-2,6-dinitrotoluene	Less Than 0.48	Micrograms per Liter
3,5-Dinitroaniline	Less Than 0.65	Micrograms per Liter
1,3-Dinitrobenzene	Less Than 0.42	Micrograms per Liter
2,4-Dinitrotoluene	Less Than 0.48	Micrograms per Liter
2,6-Dinitrotoluene	Less Than 0.53	Micrograms per Liter
Hexahydro-1,3,5-trinitro-1,3,5-triazine	Less Than 0.45	Micrograms per Liter
Nitrobenzene	Less Than 0.26	Micrograms per Liter
Nitroglycerine	Less Than 0.65	Micrograms per Liter
2-Nitrotoluene	Less Than 0.5	Micrograms per Liter
3-Nitrotoluene	Less Than 0.41	Micrograms per Liter
4-Nitrotoluene	Less Than 0.52	Micrograms per Liter
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	Less Than 0.47	Micrograms per Liter
Pentaerythritoltetranitrate	Less Than 1.2	Micrograms per Liter
1,3,5-Trinitrobenzene	Less Than 0.53	Micrograms per Liter
2,4,6-Trinitrophenylmethylnitramine	Less Than 0.48	Micrograms per Liter
2,4,6-Trinitrotoluene	Less Than 0.61	Micrograms per Liter
Mercury in Water		
Mercury	Less Than 0.20	Micrograms per Liter
Metals in Water by Inductively Coupled Argon Plasma (ICP)		
Aluminum	7410	Micrograms per Liter
Antimony	Less Than 50	Micrograms per Liter
Arsenic	Less Than 25	Micrograms per Liter

Sample: 3047-303
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Barium	299	Micrograms per Liter
Beryllium	Less Than 3	Micrograms per Liter
Cadmium	Less Than 3	Micrograms per Liter
Calcium	86.7	Milligrams per Liter
Chromium	Less Than 15	Micrograms per Liter
Cobalt	Less Than 10	Micrograms per Liter
Copper	5.25	Micrograms per Liter
Iron	7410	Micrograms per Liter
Lead	Less Than 50	Micrograms per Liter
Magnesium	28.6	Milligrams per Liter
Manganese	649	Micrograms per Liter
Molybdenum	Less Than 15	Micrograms per Liter
Nickel	Less Than 20	Micrograms per Liter
Potassium	Less Than 2	Milligrams per Liter
Selenium	Less Than 50	Micrograms per Liter
Silver	Less Than 25	Micrograms per Liter
Sodium	15.1	Milligrams per Liter
Thallium	Less Than 50	Micrograms per Liter
Titanium	107	Micrograms per Liter
Vanadium	20.6	Micrograms per Liter
Zinc	30.5	Micrograms per Liter
Perchlorate in Water by Ion Chromatography		
Perchlorate	Less Than 2.00	Micrograms per Liter
Pesticides in Water by Gas Chromatography and Electron Capture Detection (GC/EC)		
Aroclor 1016	Less Than 1	Micrograms per Liter
Aroclor 1221	Less Than 1	Micrograms per Liter
Aroclor 1232	Less Than 1	Micrograms per Liter
Aroclor 1242	Less Than 0.8	Micrograms per Liter
Aroclor 1248	Less Than 0.8	Micrograms per Liter
Aroclor 1254	Less Than 0.6	Micrograms per Liter
Aroclor 1260	Less Than 0.4	Micrograms per Liter
Semi-volatile Total Petroleum Hydrocarbon (TPH) in Water by Gas Chromatography and Flame Ionization Detection (GC/FID)		
Extractable TPH	0.12	Milligrams per Liter

Sample: 3047-303
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Volatile Total Petroleum Hydrocarbon (TPH) in Water by Gas Chromatography and Mass Selective Detection (GC/MS)		
Purgeable TPH	Less Than 50	Micrograms per Liter
Volatile Organic Compounds (VOCs) in Water by Gas Chromatography and Mass Selective Detection (GC/MS) for Low Detection Limits		
Acetone	Less Than 5.0	Micrograms per Liter
Benzene	Less Than 1.0	Micrograms per Liter
Bromodichloromethane	Less Than 1.0	Micrograms per Liter
Bromoform	Less Than 1.0	Micrograms per Liter
Bromomethane	Less Than 1.0	Micrograms per Liter
2-Butanone	Less Than 5.0	Micrograms per Liter
Carbon Disulfide	Less Than 1.0	Micrograms per Liter
Carbon Tetrachloride	Less Than 1.0	Micrograms per Liter
Chlorobenzene	Less Than 1.0	Micrograms per Liter
Chloroethane	Less Than 1.0	Micrograms per Liter
Chloroform	Less Than 1.0	Micrograms per Liter
Chloromethane	Less Than 1.0	Micrograms per Liter
Cyclohexane	Less Than 1.0	Micrograms per Liter
1,2-Dibromo-3-Chloropropane	Less Than 5.0	Micrograms per Liter
Dibromochloromethane	Less Than 1.0	Micrograms per Liter
1,2-Dibromoethane	Less Than 1.0	Micrograms per Liter
1,2-Dichlorobenzene	Less Than 1.0	Micrograms per Liter
1,3-Dichlorobenzene	Less Than 1.0	Micrograms per Liter
1,4-Dichlorobenzene	Less Than 1.0	Micrograms per Liter
Dichlorodifluoromethane	Less Than 1.0	Micrograms per Liter
1,1-Dichloroethane	Less Than 1.0	Micrograms per Liter
1,2-Dichloroethane	Less Than 1.0	Micrograms per Liter
1,1-Dichloroethene	Less Than 1.0	Micrograms per Liter
cis-1,2-Dichloroethene	Less Than 1.0	Micrograms per Liter
trans-1,2-Dichloroethene	Less Than 1.0	Micrograms per Liter
1,2-Dichloropropane	Less Than 1.0	Micrograms per Liter
cis-1,3-Dichloropropene	Less Than 1.0	Micrograms per Liter
trans-1,3-Dichloropropene	Less Than 1.0	Micrograms per Liter
Ethyl Benzene	Less Than 1.0	Micrograms per Liter
2-Hexanone	Less Than 2.0	Micrograms per Liter

Sample: 3047-303
Project ID: RKOTTEXNAS

Analysis/Analyte	Amount Found	Units
Isopropylbenzene	Less Than 1.0	Micrograms per Liter
Methyl Acetate	Less Than 5.0	Micrograms per Liter
Methyl tert-butyl ether	Less Than 1.0	Micrograms per Liter
Methylcyclohexane	Less Than 1.0	Micrograms per Liter
Methylene Chloride	Less Than 1.0	Micrograms per Liter
4-Methyl-2-Pentanone	Less Than 1.0	Micrograms per Liter
Naphthalene	Less Than 2.0	Micrograms per Liter
Styrene	Less Than 1.0	Micrograms per Liter
1,1,2,2-Tetrachloroethane	Less Than 5.0	Micrograms per Liter
Tetrachloroethene	Less Than 1.0	Micrograms per Liter
Toluene	Less Than 1.0	Micrograms per Liter
1,2,3-Trichlorobenzene	Less Than 1.0	Micrograms per Liter
1,2,4-Trichlorobenzene	Less Than 1.0	Micrograms per Liter
1,1,1-Trichloroethane	Less Than 1.0	Micrograms per Liter
1,1,2-Trichloroethane	Less Than 1.0	Micrograms per Liter
Trichloroethene	Less Than 1.0	Micrograms per Liter
Trichlorofluoromethane	Less Than 1.0	Micrograms per Liter
1,1,2-Trichlorotrifluoroethane	Less Than 1.0	Micrograms per Liter
Vinyl Chloride	Less Than 1.0	Micrograms per Liter
m and/or p-Xylene	Less Than 1.0	Micrograms per Liter
o-Xylene	Less Than 1.0	Micrograms per Liter

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 1 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-1-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Soil sample

External Sample Number: SB-1 0.5-2'

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: __ __ __ **Sample Collection: Start:** 6/12/06 1515

Longitude: __ __ __ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in Soil by GC/MS
2 - 40mL VOA vial (preserved/tared)	4 Deg C, H2O + sodium bisulfate (in vial)	14	Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	180	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28	Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14	Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14	Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14	Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments:

(N/A)

~~Lab to prepare trip blank~~ 13m

PID

City of Ottumwa - Airport
1802 Terminal St.
Ottumwa IA 52501

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 2 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-2-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Soil sample

External Sample Number: SB-1 12-14'

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/12/06 15:50
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in Soil by GC/MS
2 - 40mL VOA vial (preserved/tared)	4 Deg C, H2O + sodium bisulfate (in vial)	14	Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	180	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28	Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14	Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14	Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14	Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments:

(N/A)

0 PID

City of Ottumwa - Airport
Tom Francis
14802 Terminal St.
Ottumwa, IA 52501

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 3 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-3-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Soil sample

External Sample Number: SB2 . 0.5-2

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/12/06 16.45

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 TPH Volatiles in Soil by GC/MS
2 - 40mL VOA vial (preserved/tared)	4 Deg C, H2O + sodium bisulfate (in vial)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	180 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28 Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14 Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments: Debris burial / burn area @ PID
(N/A)

City of Ottumwa Airport
Tom Frances
14802 Terminal St
Ottumwa IA 52501

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 7 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-7-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Soil sample

External Sample Number: SB-6 (0.5-2)

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/13/06 10:25
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in Soil by GC/MS
2 - 40mL VOA vial (preserved/tared)	4 Deg C, H2O + sodium bisulfate (in vial)	14	Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	180	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28	Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14	Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14	Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14	Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments: Alfalfa field East-southeast of Bottling Plant
(N/A) City of Ottumwa-Airport
Tom Francis
14802 Terminal St.
Ottumwa, IA 52501

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 8 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-8-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Soil sample

External Sample Number: SB-6 (12-14')

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	6/13/06	10:40
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 TPH Volatiles in Soil by GC/MS
2 - 40mL VOA vial (preserved/tared)	4 Deg C, H2O + sodium bisulfate (in vial)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	180 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28 Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14 Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments: Alfalfa Field East-southeast of Bottling Plant
(N/A)
City of Ottumwa-Airport
Tom Francis
14802 Terminal St.
Ottumwa, IA 52501

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 9 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-9-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Soil sample

External Sample Number: SB-7 (0.5-2)

Expected Conc: (or Circle One) Low Medium High

Latitude: ___ ___ ___
Longitude: ___ ___ ___

	Date	Time(24 hr)
Sample Collection: Start:	6/13/06	12:50
End:	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C	14 Days	1 TPH Volatiles in Soil by GC/MS
4 - 40mL VOA vial (preserved/tared)	4 Deg C, H2O + sodium bisulfate (in vial)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	180 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28 Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14 Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments: Between former RR grade and 1st Av just NW of 5th St.
(N/A)

City of Ottumwa - Airport
Toni Francis
14802 Terminal St
Ottumwa, IA 52501

OPID
MS/MSD

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** ~~10~~ 9 **QC Code:** FD **Matrix:** Solid **Tag ID:** 3047-~~10~~ 9 FD

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Soil sample

External Sample Number: SB-7 (0.5-2')

Expected Conc: (or Circle One) Low Medium High

	Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:** 6/13/06	12:50
Longitude: ___ ___ ___	**End:** __/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 TPH Volatiles in Soil by GC/MS
2 - 40mL VOA vial (preserved/tared)	4 Deg C, H2O + sodium bisulfate (in vial)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	180 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28 Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14 Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments: Between Former RR grade & 1st Av just NW of 5th St,
(N/A) City of Ottumwa - Airport
Tom Francis
14802 Terminal St.
Ottumwa, IA 52501

Dup of SB-7 (0.5-2')

OPID

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 11 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-11-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Soil sample

External Sample Number: SB-7 (12-14ft)

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/13/06 13:15

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in Soil by GC/MS
2 - 40mL VOA vial (preserved/tared)	4 Deg C, H2O + sodium bisulfate (in vial)	14	Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	180	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28	Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14	Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14	Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14	Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments:

(N/A) City of Ottumwa-Airport
14802 Terminal St.
Ottumwa, IA 52501
Attn: Tom Francis

Ø PID

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 12 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-12-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Soil sample

External Sample Number: SB 8 (0.5-2')

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/13/06 14:20

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in Soil by GC/MS
2 - 40mL VOA vial (preserved/tared)	4 Deg C, H2O + sodium bisulfate (in vial)	14	Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	180	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28	Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14	Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14	Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14	Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments: PID South of Bottling Plant on City Property

(N/A) City of Ottumwa - Airport
14802 Terminal St
Ottumwa, IA 52501
Attn: Tom Francis

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 13 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-13-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Soil sample

External Sample Number: SB 8 12-14

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/13/06 14:40

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in Soil by GC/MS
2 - 40mL VOA vial (preserved/tared)	4 Deg C, H2O + sodium bisulfate (in vial)	14	Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	180	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28	Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14	Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14	Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14	Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments: City of Ottumwa - Airport City prop south of Bottling Plant
(N/A) Tom Francis
14802 Terminal St
Ottumwa, IA 52501

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 14 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-14-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Soil sample

External Sample Number: SB 9 (0.5-2 ft)

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/13/06 15:20

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in Soil by GC/MS
2 - 40mL VOA vial (preserved/tared)	4 Deg C, H2O + sodium bisulfate (in vial)	14	Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	180	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28	Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14	Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14	Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14	Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments:

(N/A) City of Ottumwa - Airport
Easement at N of intersection of 2nd Av & 8th St
by AL Jon

City of Ottumwa - Airport
Tom Frances
14802 Terminal St.
Ottumwa, IA 52501

OPID

Jon Kneen, Chairman
Al-Jon, Inc.
Requested copy of data
as left this property.
14599 2nd Av.
Ottumwa, IA 52501

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 15 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-15-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Soil sample

External Sample Number: SB9 (10-12' ~~12-14'~~ dup.)

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/13/06 15:40

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in Soil by GC/MS
2 - 40mL VOA vial (preserved/tared)	4 Deg C, H2O + sodium bisulfate (in vial)	14	Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	180	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28	Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14	Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14	Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14	Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments:

(N/A) City of Ottumwa - Airport
Tom Francis
14802 Terminal St
Ottumwa IA 52501

2nd ~~St~~ 8th St north easement
south of former Motor Vehicle Bldg.

Petroleum odor; PID = 56.6 ppm
~~@ PID~~ seen

Kneen
Jon ~~Keen~~, Chairman
Al-Jon, Inc
14599 2nd Av
Ottumwa, IA 52501-9281
requested copy of data
easement next to his
company

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 16 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-16-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Soil sample

External Sample Number: SB10 (0.5-2ft)

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/13/06 16:30

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in Soil by GC/MS
2 - 40mL VOA vial (preserved/tared)	4 Deg C, H2O + sodium bisulfate (in vial)	14	Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	180	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28	Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14	Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14	Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14	Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments: PID

(N/A)

Across (SE) of Terminal St. from Airport Terminal

City of Ottumwa - Airport
Tom Francis
14802 Terminal St.
Ottumwa, IA 52501

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 17 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-17-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Soil sample

External Sample Number: SB 10 (12-14)

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/13/06 17:00
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in Soil by GC/MS
2 - 40mL VOA vial (preserved/tared)	4 Deg C, H2O + sodium bisulfate (in vial)	14	Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	180	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28	Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14	Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14	Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14	Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments:

(N/A) City of Ottumwa - Airport
Tom Francis
14802 Terminal St
Ottumwa, IA 52501

Across Terminal St from Terminal Bldg.

PID = 0

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 18 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-18-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Soil sample

External Sample Number: SB11 (0.5-2')

Expected Conc: (or Circle One: Low Medium High)

		Date	Time(24 hr)
Latitude: ___ ___ ___	**Sample Collection: Start:**	6/13/06	17:45
Longitude: ___ ___ ___	**End:**	__/__/__	__:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in Soil by GC/MS
2 - 40mL VOA vial (preserved/tared)	4 Deg C, H2O + sodium bisulfate (in vial)	14	Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	180	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28	Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14	Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14	Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14	Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments: Background location NW Terminal Av. ~ 200 ft west of Airport Rd. (~ 50' West of sign for airport)
(N/A)

City of Ottumwa - Airport
Tom Francis
14802 Terminal St.
Ottumwa, IA 52501

PID

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 19 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-19-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Soil sample

External Sample Number: _____

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/13/06 18:05

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in Soil by GC/MS
2 - 40mL VOA vial (preserved/tared)	4 Deg C, H2O + sodium bisulfate (in vial)	14	Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	180	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28	Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14	Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14	Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14	Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments:
(N/A)

Background Location N of terminal Av ~ 12-14 ft W of Airport Rd (~ 50' west of sign for Airport)

City of Ottumwa - Airport
Tom Francis
14802 Terminal St.
Ottumwa, IA 52501

& PID

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 20 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-20-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: ~~Soil~~ Sediment sample

External Sample Number: SED-4

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/14/06 09:30

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in Soil by GC/MS
2 - 40mL VOA vial (~~preserved/tared~~)	4 Deg C, H2O ~~+ sodium bisulfate (in vial)~~	14	Days	1 VOC's in ~~Soil at Low Levels by GC/MS Closed-System Purge-and-Trap~~ Solid Matrices by GC/MS
1 - 8 oz glass	4 Deg C	180	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28	Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14	Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14	Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14	Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments: Downstream of SED1 + SED2

(N/A)
City of Ottumwa - Airport
Tom Francis
14802 Terminal St.
Ottumwa, IA 52501

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 21 **QC Code:** FB **Matrix:** Solid **Tag ID:** 3047-21-FB

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Soil 5035 VOA/TPH (OA-1) Trip Blank sample

External Sample Number: _____

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/12/06 05:00
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 TPH Volatiles in Soil by GC/MS
2 - 40mL VOA vial (preserved/tared)	4 Deg C, H2O + sodium bisulfate (in vial)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Sample Comments: Lab-prepared Trip blanks.
(N/A)

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 22 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-22-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Sediment sample

External Sample Number: SED-1

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/8/06 17:30

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 - 40mL VOA vial	4 Deg C	14	Days	1 VOCs in Solid Matrices by GC/MS
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in Soil by GC/MS
1 - 8 oz glass	4 Deg C	180	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28	Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14	Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14	Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14	Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments: Sed location from drainage NW E of Treatment plant
(N/A)

City of Ottumwa - Airport
Tom Frances
14802 Terminal St.
Ottumwa IA 52501

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 23 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-23-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Sediment sample

External Sample Number: SED-2

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/12/06 1745

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 - 40mL VOA vial	4 Deg C	14	Days	1 VOCs in Solid Matrices by GC/MS
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in Soil by GC/MS
1 - 8 oz glass	4 Deg C	180	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28	Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14	Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14	Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14	Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments: Background NNW of treatment
(N/A)

City of Ottumwa - Airport
Tom Frances
14802 Terminal St,
Ottumwa, IA 52501

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 24 **QC Code:** __ **Matrix:** Solid **Tag ID:** 3047-24-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Sediment sample

External Sample Number: SED-3

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/13/06 09:10

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 - 40mL VOA vial	4 Deg C	14	Days	1 VOCs in Solid Matrices by GC/MS
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in Soil by GC/MS
1 - 8 oz glass	4 Deg C	180	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28	Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14	Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14	Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14	Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments:
(N/A) City of Ottumwa - airport Drainage south of airport
Tom Francis
14802 Terminal St,
Ottumwa IA 52501

Sample Collected By: JM

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 25 **QC Code:** FD **Matrix:** Solid **Tag ID:** 3047-~~25~~ 24FD

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Sediment sample

External Sample Number: SED-3

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/13/06 09:10
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 - 40mL VOA vial	4 Deg C	14	Days	1 VOCs in Solid Matrices by GC/MS
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in Soil by GC/MS
1 - 8 oz glass	4 Deg C	180	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP
1 - 8 oz glass	4 Deg C	28	Days	1 Perchlorate in Soil by IC
1 - 8 oz glass	4 Deg C	14	Days	1 PCBs in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14	Days	1 TPH Semi-Volatile in Soil by GC/FID
1 - 8 oz glass	4 Deg C	14	Days	1 Explosives in Soil by GC/ECD
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments: SED 3-Dup Drainage south of airport
(N/A)

City of Ottumwa - Airport
Tom Francis
14802 Terminal St
Ottumwa, IA. 52501

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 27 **QC Code:** FB **Matrix:** Solid **Tag ID:** 3047-27-FB

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Sediment VOA/TPH (OA-1) Trip Blank sample

External Sample Number: _____

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/12/06 08:15

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 VOCs in Solid Matrices by GC/MS
~~2 - 40mL VOA vial~~	4 Deg C	14 Days	1 TPH Volatiles-in-Soil by GC/MS

10 to solids
Only had one set of VOAs

Sample Comments: Lab prepared trip blanks
(N/A)

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 107 **QC Code:** FB **Matrix:** Water **Tag ID:** 3047-107-FB

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Temp. Well GW LDL VOA/TPH (OA-1) Trip Blank sample

External Sample Number: _____

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/8/06 0630

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 TPH Volatiles in water by GC/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments: Lab prepared trip blanks
(N/A)

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 207 **QC Code:** FB **Matrix:** Water **Tag ID:** 3047-207-FB

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: DW Field Blank sample

External Sample Number: Field Blank

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/13/06 18:35

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
1 - 1 Liter Cubitainer	4 Deg C	28	Days	1 Perchlorate in Water by IC
1 - 1 Liter Cubitainer	5 mL of HNO3/L to pH<2	28	Days	1 Mercury in Water
1 - 1 Liter Cubitainer	HNO3 acidify, 4 Deg C	180	Days	1 Metals in Water by ICP
1 - 128oz amber glass	4 Deg C	7	Days	1 Pesticides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7	Days	1 TPH Semi-volatile in Water by GC/FID
1 - 128oz amber glass	4 Deg C	7	Days	1 Explosives in Water by GC/ECD
2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in water by GC/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14	Days	1 VOCs in Drinking Water by GC/MS

Sample Comments:
(N/A) Field Blank

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 208 **QC Code:** FB **Matrix:** Water **Tag ID:** 3047-208-FB

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: DW VOA/TPH (OA-1) Trip Blank sample

External Sample Number: _____

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/8/06 0640

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 TPH Volatiles in water by GC/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Drinking Water by GC/MS

Sample Comments: Lab-prepared trip blank.
(N/A)

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 301 **QC Code:** __ **Matrix:** Water **Tag ID:** 3047-301-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Surface water sample

External Sample Number: SW-3

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/13/06 09:00

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

	Container	Preservative	Holding Time		Analysis
	1 - 1 Liter Cubitainer	4 Deg C	28	Days	1 Perchlorate in Water by IC
1	1 - 1 Liter Cubitainer	5 mL of HNO3/L to pH<2	28	Days	1 Mercury in Water
1	1 - 1 Liter Cubitainer	HNO3 acidify, 4 Deg C	180	Days	1 Metals in Water by ICP
2	1 - 128oz amber glass	4 Deg C	7	Days	1 Pesticides in Water by GC/EC
2	1 - 128oz amber glass	4 Deg C	7	Days	1 TPH Semi-volatile in Water by GC/FID
	1 - 128oz amber glass	4 Deg C	7	Days	1 Explosives in Water by GC/ECD
4	2 - 40mL VOA vial	4 Deg C	14	Days	1 TPH Volatiles in water by GC/MS
7	2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14	Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments: MS/MSD, South drainage from airport

(N/A) City of Ottumwa - Airport
Tom Francis
14802 Terminal St
Ottumwa, IA 52501

Sample Collected By: JM

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

301 ~~302~~ FD

ASR Number: 3047 **Sample Number:** ~~302~~ 301 **QC Code:** FD **Matrix:** Water **Tag ID:** 3047-~~302~~ 301 FD

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Surface water sample

External Sample Number: SW-3 Dup

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/13/06 09:00

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	4 Deg C	28 Days	1 Perchlorate in Water by IC
1 - 1 Liter Cubitainer	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter Cubitainer	HNO3 acidify, 4 Deg C	180 Days	1 Metals in Water by ICP
1 - 128oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 TPH Semi-volatile in Water by GC/FID
1 - 128oz amber glass	4 Deg C	7 Days	1 Explosives in Water by GC/ECD
2 - 40mL VOA vial	4 Deg C	14 Days	1 TPH Volatiles in water by GC/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments:

(N/A) Dup South Drainage from airport

City of Ottumwa - Airport
Tom Francis
14802 Terminal St
Ottumwa, IA 52501

Sample Collected By: JM

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 3047 **Sample Number:** 303 **QC Code:** __ **Matrix:** Water **Tag ID:** 3047-303-__

Project ID: RKOTTEXNAS **Project Manager:** Ron King
Project Desc: Ottumwa (EX) NAS - PA sampling
City: Ottumwa **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Surface water sample

External Sample Number: SED-4

Expected Conc: (or Circle One: (Low) Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 6/14/06 09:20

Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter Cubitainer	4 Deg C	28 Days	1 Perchlorate in Water by IC
1 - 1 Liter Cubitainer	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter Cubitainer	HNO3 acidify, 4 Deg C	180 Days	1 Metals in Water by ICP
1 - 128oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 TPH Semi-volatile in Water by GC/FID
1 - 128oz amber glass	4 Deg C	7 Days	1 Explosives in Water by GC/ECD
2 - 40mL VOA vial	4 Deg C	14 Days	1 TPH Volatiles in water by GC/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits

Sample Comments: Stream drainage from north of airport (downstream (N/A) of SED 1 & SED 2) on Airport Road

City of Ottumwa - Airport
Tom Francis
14802 Terminal St,
Ottumwa, IA 52501

Sample Collected By: JM