

## **Sediment QA/QC Samples**

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPER100902

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) WATER

Lab Sample ID: A1489-11A

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: V2F3250

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 10/13/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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75-71-8-----	Dichlorodifluoromethane	5	U
74-87-3-----	Chloromethane	5	U
75-01-4-----	Vinyl Chloride	5	U
74-83-9-----	Bromomethane	5	U
75-00-3-----	Chloroethane	5	U
75-69-4-----	Trichlorofluoromethane	5	U
75-35-4-----	1,1-Dichloroethene	5	U
67-64-1-----	Acetone	31	
74-88-4-----	Iodomethane	5	U
75-15-0-----	Carbon Disulfide	5	U
75-09-2-----	Methylene Chloride	170	
156-60-5-----	trans-1,2-Dichloroethene	5	U
1634-04-4-----	Methyl tert-butyl ether	5	U
75-34-3-----	1,1-Dichloroethane	5	U
108-05-4-----	Vinyl acetate	5	U
78-93-3-----	2-Butanone	5	U
156-59-2-----	cis-1,2-Dichloroethene	5	U
590-20-7-----	2,2-Dichloropropane	5	U
74-97-5-----	Bromochloromethane	5	U
67-66-3-----	Chloroform	5	U
71-55-6-----	1,1,1-Trichloroethane	5	U
563-58-6-----	1,1-Dichloropropene	5	U
56-23-5-----	Carbon Tetrachloride	5	U
107-06-2-----	1,2-Dichloroethane	5	U
71-43-2-----	Benzene	5	U
79-01-6-----	Trichloroethene	5	U
78-87-5-----	1,2-Dichloropropane	5	U
74-95-3-----	Dibromomethane	5	U
75-27-4-----	Bromodichloromethane	5	U
10061-01-5-----	cis-1,3-Dichloropropene	5	U
108-10-1-----	4-Methyl-2-pentanone	5	U
108-88-3-----	Toluene	5	U
10061-02-6-----	trans-1,3-Dichloropropene	5	U
79-00-5-----	1,1,2-Trichloroethane	5	U

FORM I VOA

OLM03.0

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPER100902

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) WATER

Lab Sample ID: A1489-11A

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: V2F3250

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 10/13/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

142-28-9-----	1,3-Dichloropropane	5	U
127-18-4-----	Tetrachloroethene	5	U
591-78-6-----	2-Hexanone	5	U
124-48-1-----	Dibromochloromethane	5	U
106-93-4-----	1,2-Dibromoethane	5	U
108-90-7-----	Chlorobenzene	5	U
630-20-6-----	1,1,1,2-Tetrachloroethane	5	U
100-41-4-----	Ethylbenzene	5	U
1330-20-7-----	Xylene (Total)	5	U
100-42-5-----	Styrene	5	U
75-25-2-----	Bromoform	5	U
98-82-8-----	Isopropylbenzene	5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	5	U
108-86-1-----	Bromobenzene	5	U
96-18-4-----	1,2,3-Trichloropropane	5	U
103-65-1-----	n-Propylbenzene	5	U
95-49-8-----	2-Chlorotoluene	5	U
108-67-8-----	1,3,5-Trimethylbenzene	5	U
106-43-4-----	4-Chlorotoluene	5	U
98-06-6-----	tert-Butylbenzene	5	U
95-63-6-----	1,2,4-Trimethylbenzene	5	U
135-98-8-----	sec-Butylbenzene	5	U
99-87-6-----	4-Isopropyltoluene	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
104-51-8-----	n-Butylbenzene	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
96-12-8-----	1,2-Dibromo-3-chloropropane	5	U
120-82-1-----	1,2,4-Trichlorobenzene	5	U
87-68-3-----	Hexachlorobutadiene	5	U
91-20-3-----	Naphthalene	5	U
87-61-6-----	1,2,3-Trichlorobenzene	5	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPER100902

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) WATER

Lab Sample ID: A1489-11A

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: V2F3250

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 10/13/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPER100902

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) WATER

Lab Sample ID: A1489-11E

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S3B9840

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Extracted: 10/16/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/16/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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108-95-2-----	Phenol	10	U
111-44-4-----	bis(2-Chloroethyl) Ether	10	U
95-57-8-----	2-Chlorophenol	10	U
541-73-1-----	1,3-Dichlorobenzene	10	U
106-46-7-----	1,4-Dichlorobenzene	10	U
95-50-1-----	1,2-Dichlorobenzene	10	U
95-48-7-----	2-Methylphenol	10	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5-----	4-Methylphenol	10	U
621-64-7-----	N-Nitroso-di-n-propylamine	10	U
67-72-1-----	Hexachloroethane	10	U
98-95-3-----	Nitrobenzene	10	U
78-59-1-----	Isophorone	10	U
88-75-5-----	2-Nitrophenol	10	U
105-67-9-----	2,4-Dimethylphenol	10	U
120-83-2-----	2,4-Dichlorophenol	10	U
120-82-1-----	1,2,4-Trichlorobenzene	10	U
91-20-3-----	Naphthalene	10	U
106-47-8-----	4-Chloroaniline	10	U
111-91-1-----	bis(2-Chloroethoxy) methane	10	U
87-68-3-----	Hexachlorobutadiene	10	U
59-50-7-----	4-Chloro-3-Methylphenol	10	U
91-57-6-----	2-Methylnaphthalene	10	U
77-47-4-----	Hexachlorocyclopentadiene	10	U
88-06-2-----	2,4,6-Trichlorophenol	10	U
95-95-4-----	2,4,5-Trichlorophenol	20	U
91-58-7-----	2-Chloronaphthalene	10	U
88-74-4-----	2-Nitroaniline	20	U
131-11-3-----	Dimethylphthalate	10	U
208-96-8-----	Acenaphthylene	10	U
606-20-2-----	2,6-Dinitrotoluene	10	U
99-09-2-----	3-Nitroaniline	20	U
83-32-9-----	Acenaphthene	10	U

FORM I SV-1

OLM03.0

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPER100902

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) WATER

Lab Sample ID: A1489-11E

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S3B9840

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Extracted: 10/16/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/16/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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51-28-5-----	2,4-Dinitrophenol	20	U
100-02-7-----	4-Nitrophenol	20	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	10	U
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	20	U
534-52-1-----	4,6-Dinitro-2-methylphenol	20	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	20	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-butylphthalate	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)phthalate	5	J
117-84-0-----	Di-n-octylphthalate	10	U
205-99-2-----	Benzo(b)fluoranthene	10	U
207-08-9-----	Benzo(k)fluoranthene	10	U
50-32-8-----	Benzo(a)pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	10	U
53-70-3-----	Dibenzo(a,h)anthracene	10	U
191-24-2-----	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPER100902

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) WATER

Lab Sample ID: A1489-11E

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S3B9840

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Extracted: 10/16/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/16/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/L

Number TICs found: 2

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYL)	18.96	4	NJ
2. 791-28-6	PHOSPHINE OXIDE, TRIPHENYL-	21.48	13	NJ
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPER100902

Lab Name: MITKEM\_CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_

SDG No.: A1489A\_

Matrix (soil/water): WATER\_\_\_\_\_ Lab Sample ID: A1489-11D\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: \_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	3.0	U	IN	CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_

Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_

Artifacts: \_\_\_\_\_

Comments:



**Mitkem Corporation****Date:** 08-Nov-02**CLIENT:** GEI Consultants, Inc.**Project:** Keyspan**Client Sample ID:** RPER100902**Collection Date:** 10/09/02 9:30**Lab ID:** A1489-11

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	ND		4.0	mg/L CaCO3	1	10/16/02 12:17
<b>PH VALUE</b>						
pH	4.0		1.0	pH Units	1	10/11/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RTB100902

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) WATER

Lab Sample ID: A1489-31A

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: V2F3251

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 10/13/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
142-28-9-----	1,3-Dichloropropane	5 U	
127-18-4-----	Tetrachloroethene	5 U	
591-78-6-----	2-Hexanone	5 U	
124-48-1-----	Dibromochloromethane	5 U	
106-93-4-----	1,2-Dibromoethane	5 U	
108-90-7-----	Chlorobenzene	5 U	
630-20-6-----	1,1,1,2-Tetrachloroethane	5 U	
100-41-4-----	Ethylbenzene	5 U	
1330-20-7-----	Xylene (Total)	5 U	
100-42-5-----	Styrene	5 U	
75-25-2-----	Bromoform	5 U	
98-82-8-----	Isopropylbenzene	5 U	
79-34-5-----	1,1,2,2-Tetrachloroethane	5 U	
108-86-1-----	Bromobenzene	5 U	
96-18-4-----	1,2,3-Trichloropropane	5 U	
103-65-1-----	n-Propylbenzene	5 U	
95-49-8-----	2-Chlorotoluene	5 U	
108-67-8-----	1,3,5-Trimethylbenzene	5 U	
106-43-4-----	4-Chlorotoluene	5 U	
98-06-6-----	tert-Butylbenzene	5 U	
95-63-6-----	1,2,4-Trimethylbenzene	5 U	
135-98-8-----	sec-Butylbenzene	5 U	
99-87-6-----	4-Isopropyltoluene	5 U	
541-73-1-----	1,3-Dichlorobenzene	5 U	
106-46-7-----	1,4-Dichlorobenzene	5 U	
104-51-8-----	n-Butylbenzene	5 U	
95-50-1-----	1,2-Dichlorobenzene	5 U	
96-12-8-----	1,2-Dibromo-3-chloropropane	5 U	
120-82-1-----	1,2,4-Trichlorobenzene	5 U	
87-68-3-----	Hexachlorobutadiene	5 U	
91-20-3-----	Naphthalene	5 U	
87-61-6-----	1,2,3-Trichlorobenzene	5 U	

FORM I VOA

OLM03.0

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RTB100902

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) WATER

Lab Sample ID: A1489-31A

Sample wt/vol: 5.000 (g/mL) ML

Lab File ID: V2F3251

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 10/13/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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# **Sediment Validated Form I Analytical Data**

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0210003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-20C

Sample wt/vol: 5.5 (g/mL) G

Lab File ID: V1F0412

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 18

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	UG/KG
			Q
74-87-3	Chloromethane	6	UJ
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	UJ
75-00-3	Chloroethane	6	UJ
75-35-4	1,1-Dichloroethene	6	U
67-64-1	Acetone	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	3	JB
156-60-5	trans-1,2-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
78-93-3	2-Butanone	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-10-1	4-Methyl-2-pentanone	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
127-18-4	Tetrachloroethene	6	U
591-78-6	2-Hexanone	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (Total)	6	U
100-42-5	Styrene	6	U
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0210003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-20C

Sample wt/vol: 5.5 (g/mL) G

Lab File ID: V1F0412

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 18

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0210003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-20A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9955

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 18 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

108-95-2-----	Phenol	2000	U
111-44-4-----	bis(2-Chloroethyl) Ether	2000	U
95-57-8-----	2-Chlorophenol	2000	U
541-73-1-----	1,3-Dichlorobenzene	2000	U
106-46-7-----	1,4-Dichlorobenzene	2000	U
95-50-1-----	1,2-Dichlorobenzene	2000	U
95-48-7-----	2-Methylphenol	2000	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	2000	U
106-44-5-----	4-Methylphenol	2000	U
621-64-7-----	N-Nitroso-di-n-propylamine	2000	U
67-72-1-----	Hexachloroethane	2000	U
98-95-3-----	Nitrobenzene	2000	U
78-59-1-----	Isophorone	2000	U
88-75-5-----	2-Nitrophenol	2000	U
105-67-9-----	2,4-Dimethylphenol	2000	U
120-83-2-----	2,4-Dichlorophenol	2000	U
120-82-1-----	1,2,4-Trichlorobenzene	2000	U
91-20-3-----	Naphthalene	2000	U
106-47-8-----	4-Chloroaniline	2000	UJ
111-91-1-----	bis(2-Chloroethoxy) methane	2000	U
87-68-3-----	Hexachlorobutadiene	2000	U
59-50-7-----	4-Chloro-3-Methylphenol	2000	U
91-57-6-----	2-Methylnaphthalene	2000	U
77-47-4-----	Hexachlorocyclopentadiene	2000	U
88-06-2-----	2,4,6-Trichlorophenol	2000	U
95-95-4-----	2,4,5-Trichlorophenol	4000	U
91-58-7-----	2-Chloronaphthalene	2000	U
88-74-4-----	2-Nitroaniline	4000	U
131-11-3-----	Dimethylphthalate	2000	U
208-96-8-----	Acenaphthylene	420	J
606-20-2-----	2,6-Dinitrotoluene	2000	U
99-09-2-----	3-Nitroaniline	4000	UJ
83-32-9-----	Acenaphthene	2000	U

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0210003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-20A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9955

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 18 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

51-28-5-----	2,4-Dinitrophenol	4000	U
100-02-7-----	4-Nitrophenol	4000	UJ
132-64-9-----	Dibenzofuran	2000	U
121-14-2-----	2,4-Dinitrotoluene	2000	U
84-66-2-----	Diethylphthalate	2000	U
7005-72-3-----	4-Chlorophenyl-phenylether	2000	U
86-73-7-----	Fluorene	2000	U
100-01-6-----	4-Nitroaniline	4000	UJ
534-52-1-----	4,6-Dinitro-2-methylphenol	4000	U
86-30-6-----	N-Nitrosodiphenylamine (1)	2000	U
101-55-3-----	4-Bromophenyl-phenylether	2000	U
118-74-1-----	Hexachlorobenzene	2000	U
87-86-5-----	Pentachlorophenol	4000	U
85-01-8-----	Phenanthrene	910	J
120-12-7-----	Anthracene	440	J
86-74-8-----	Carbazole	2000	UJ
84-74-2-----	Di-n-butylphthalate	2000	U
206-44-0-----	Fluoranthene	1700	J
129-00-0-----	Pyrene	4000	
85-68-7-----	Butylbenzylphthalate	2000	U
91-94-1-----	3,3'-Dichlorobenzidine	2000	U
56-55-3-----	Benzo(a)anthracene	1600	J
218-01-9-----	Chrysene	1600	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	2000	U
117-84-0-----	Di-n-octylphthalate	2000	U
205-99-2-----	Benzo(b)fluoranthene	960	J
207-08-9-----	Benzo(k)fluoranthene	260	J
50-32-8-----	Benzo(a)pyrene	1200	J
193-39-5-----	Indeno(1,2,3-cd)pyrene	450	J
53-70-3-----	Dibenzo(a,h)anthracene	2000	U
191-24-2-----	Benzo(g,h,i)perylene	540	J

(1) - Cannot be separated from Diphenylamine



1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0210003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-20A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9955

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 18 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 10

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 613-12-7	ANTHRACENE, 2-METHYL-	15.74	1200	NJ
2.	UNKNOWN	15.94	1700	J
3. 613-12-7	ANTHRACENE, 2-METHYL-	15.99	1100	NJ
4. 3674-65-5	PHENANTHRENE, 2,3-DIMETHYL-	16.86	1300	NJ
5. 5951-61-1	NAPHTHALENE, 1,2,4A,5,8,8A-H	16.90	1000	NJ
6.	UNKNOWN PAH	17.31	1000	J
7. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYL)	17.87	830	NJ
8. 238-84-6	11H-BENZO[A] FLUORENE	18.25	930	NJ
9. 3351-32-4	2-METHYLCHRYSENE	20.78	910	NJ
10. 192-97-2	BENZO[E] PYRENE	22.42	820	NJ
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0210003

Lab Name: MITKEM CORPORATION \_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_

SDG No.: A1489B\_

Matrix (soil/water): SOIL \_\_\_\_\_ Lab Sample ID: A1489-20A \_\_\_\_\_

Level (low/med): MED \_\_\_\_\_ Date Received: 10/11/02 \_\_\_\_\_

% Solids: 82.0 \_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.17	U		CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation**

Date: 08-Nov-02

CLIENT: GEI Consultants, Inc.

Project: Keyspan

Client Sample ID: SED0210003

Collection Date: 10/09/02 16:30

Lab ID: A1489-20

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	18000		230	mg/Kg CaCO3	1	10/24/02 15:38
<b>SOIL AND WASTE PH</b>						
pH	8.0		1.0	pH Units	1	10/21/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0210330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-21C

Sample wt/vol: 5.2 (g/mL) G

Lab File ID: V1F0441

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 17

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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74-87-3-----	Chloromethane	6	U
75-01-4-----	Vinyl Chloride	6	U
74-83-9-----	Bromomethane	6	U
75-00-3-----	Chloroethane	6	U
75-35-4-----	1,1-Dichloroethene	6	U
67-64-1-----	Acetone	6	U
75-15-0-----	Carbon Disulfide	6	U
75-09-2-----	Methylene Chloride	2	JB
156-60-5-----	trans-1,2-Dichloroethene	6	U
75-34-3-----	1,1-Dichloroethane	6	U
78-93-3-----	2-Butanone	6	U
156-59-2-----	cis-1,2-Dichloroethene	6	U
67-66-3-----	Chloroform	6	U
71-55-6-----	1,1,1-Trichloroethane	6	U
56-23-5-----	Carbon Tetrachloride	6	U
107-06-2-----	1,2-Dichloroethane	6	U
71-43-2-----	Benzene	6	U
79-01-6-----	Trichloroethene	6	U
78-87-5-----	1,2-Dichloropropane	6	U
75-27-4-----	Bromodichloromethane	6	U
10061-01-5-----	cis-1,3-Dichloropropene	6	U
108-10-1-----	4-Methyl-2-pentanone	6	U
108-88-3-----	Toluene	6	U
10061-02-6-----	trans-1,3-Dichloropropene	6	U
79-00-5-----	1,1,2-Trichloroethane	6	U
127-18-4-----	Tetrachloroethene	6	U
591-78-6-----	2-Hexanone	6	U
124-48-1-----	Dibromochloromethane	6	U
108-90-7-----	Chlorobenzene	6	U
100-41-4-----	Ethylbenzene	6	U
1330-20-7-----	Xylene (Total)	6	U
100-42-5-----	Styrene	6	U
75-25-2-----	Bromoform	6	U
79-34-5-----	1,1,2,2-Tetrachloroethane	6	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0210330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-21C

Sample wt/vol: 5.2 (g/mL) G

Lab File ID: V1F0441

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 17

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 2

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 90-12-0	NAPHTHALENE, 1-METHYL-	16.58	7	NJ
2. 83-32-9	ACENAPHTHENE	18.32	11	NJ
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0210330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-21A

Sample wt/vol: 30.7 (g/mL) G

Lab File ID: S3B9859

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 17 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	Q
108-95-2	Phenol	390 U
111-44-4	bis(2-Chloroethyl) Ether	390 U
95-57-8	2-Chlorophenol	390 U
541-73-1	1,3-Dichlorobenzene	390 U
106-46-7	1,4-Dichlorobenzene	390 U
95-50-1	1,2-Dichlorobenzene	390 U
95-48-7	2-Methylphenol	390 U
108-60-1	2,2'-oxybis(1-Chloropropane)	390 U
106-44-5	4-Methylphenol	390 U
621-64-7	N-Nitroso-di-n-propylamine	390 U
67-72-1	Hexachloroethane	390 U
98-95-3	Nitrobenzene	390 U
78-59-1	Isophorone	390 U
88-75-5	2-Nitrophenol	390 U
105-67-9	2,4-Dimethylphenol	390 U
120-83-2	2,4-Dichlorophenol	390 U
120-82-1	1,2,4-Trichlorobenzene	390 U
91-20-3	Naphthalene	390 U
106-47-8	4-Chloroaniline	390 U
111-91-1	bis(2-Chloroethoxy)methane	390 U
87-68-3	Hexachlorobutadiene	390 U
59-50-7	4-Chloro-3-Methylphenol	390 U
91-57-6	2-Methylnaphthalene	390 U
77-47-4	Hexachlorocyclopentadiene	390 U
88-06-2	2,4,6-Trichlorophenol	390 U
95-95-4	2,4,5-Trichlorophenol	790 U
91-58-7	2-Chloronaphthalene	390 U
88-74-4	2-Nitroaniline	790 U
131-11-3	Dimethylphthalate	390 U
208-96-8	Acenaphthylene	390 U
606-20-2	2,6-Dinitrotoluene	390 U
99-09-2	3-Nitroaniline	790 U
83-32-9	Acenaphthene	390 U

FORM I SV-1

OLM03.0

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0210330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-21A

Sample wt/vol: 30.7 (g/mL) G

Lab File ID: S3B9859

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 17 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

51-28-5-----	2,4-Dinitrophenol	790	U
100-02-7-----	4-Nitrophenol	790	U
132-64-9-----	Dibenzofuran	390	U
121-14-2-----	2,4-Dinitrotoluene	390	U
84-66-2-----	Diethylphthalate	390	U
7005-72-3-----	4-Chlorophenyl-phenylether	390	U
86-73-7-----	Fluorene	390	U
100-01-6-----	4-Nitroaniline	790	U
534-52-1-----	4,6-Dinitro-2-methylphenol	790	U
86-30-6-----	N-Nitrosodiphenylamine (1)	390	U
101-55-3-----	4-Bromophenyl-phenylether	390	U
118-74-1-----	Hexachlorobenzene	390	U
87-86-5-----	Pentachlorophenol	790	U
85-01-8-----	Phenanthrene	390	U
120-12-7-----	Anthracene	390	U
86-74-8-----	Carbazole	390	U
84-74-2-----	Di-n-butylphthalate	390	U
206-44-0-----	Fluoranthene	390	U
129-00-0-----	Pyrene	390	U
85-68-7-----	Butylbenzylphthalate	390	U
91-94-1-----	3,3'-Dichlorobenzidine	390	U
56-55-3-----	Benzo(a)anthracene	390	U
218-01-9-----	Chrysene	390	U
117-81-7-----	bis(2-Ethylhexyl)phthalate	390	U
117-84-0-----	Di-n-octylphthalate	390	U
205-99-2-----	Benzo(b)fluoranthene	390	U
207-08-9-----	Benzo(k)fluoranthene	390	U
50-32-8-----	Benzo(a)pyrene	390	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	390	U
53-70-3-----	Dibenzo(a,h)anthracene	390	U
191-24-2-----	Benzo(g,h,i)perylene	390	U

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0210330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-21A

Sample wt/vol: 30.7 (g/mL) G

Lab File ID: S3B9859

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 17 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 4

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.34	760	JB
2. 80-05-7	PHENOL, 4,4' - (1-METHYLETHYLI	18.73	1600	NJ
3.	UNKNOWN	20.04	340	J
4.	UNKNOWN	22.75	160	J
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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0210330

Lab Name: MITKEM\_CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: A1489B\_

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-21A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 83.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.16	U		CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation****Date:** 08-Nov-02**CLIENT:** GEI Consultants, Inc.**Project:** Keyspan**Client Sample ID:** SED0210330**Collection Date:** 10/09/02 16:35**Lab ID:** AI489-21

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	2600		240	mg/Kg CaCO3	1	10/24/02 12:26
<b>SOIL AND WASTE PH</b>						
pH	7.9		1.0	pH Units	1	10/21/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SEDXX100902  
SE00210330 (Dup)

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-22C

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: V1F0442

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 17

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/KG	
74-87-3	-----Chloromethane	6	U	
75-01-4	-----Vinyl Chloride	6	U	
74-83-9	-----Bromomethane	6	U	
75-00-3	-----Chloroethane	6	U	
75-35-4	-----1,1-Dichloroethene	6	U	
67-64-1	-----Acetone	6	U	
75-15-0	-----Carbon Disulfide	6	U	
75-09-2	-----Methylene Chloride	4	JB	
156-60-5	-----trans-1,2-Dichloroethene	6	U	
75-34-3	-----1,1-Dichloroethane	6	U	
78-93-3	-----2-Butanone	6	U	
156-59-2	-----cis-1,2-Dichloroethene	6	U	
67-66-3	-----Chloroform	6	U	
71-55-6	-----1,1,1-Trichloroethane	6	U	
56-23-5	-----Carbon Tetrachloride	6	U	
107-06-2	-----1,2-Dichloroethane	6	U	
71-43-2	-----Benzene	6	U	
79-01-6	-----Trichloroethene	6	U	
78-87-5	-----1,2-Dichloropropane	6	U	
75-27-4	-----Bromodichloromethane	6	U	
10061-01-5	-----cis-1,3-Dichloropropene	6	U	
108-10-1	-----4-Methyl-2-pentanone	6	U	
108-88-3	-----Toluene	6	U	
10061-02-6	-----trans-1,3-Dichloropropene	6	U	
79-00-5	-----1,1,2-Trichloroethane	6	U	
127-18-4	-----Tetrachloroethene	6	U	
591-78-6	-----2-Hexanone	6	U	
124-48-1	-----Dibromochloromethane	6	U	
108-90-7	-----Chlorobenzene	6	U	
100-41-4	-----Ethylbenzene	6	U	
1330-20-7	-----Xylene (Total)	6	U	
100-42-5	-----Styrene	6	U	
75-25-2	-----Bromoform	6	U	
79-34-5	-----1,1,2,2-Tetrachloroethane	6	U	

FORM I VOA

OLM03.0

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SEDXX100902  
SED0210330 (DUP)

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-22C

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: V1F0442

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 17

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SEDXX100902  
SEDo210330 (DUP)

Lab Name: MITKEM CORPORATION      Contract: \_\_\_\_\_

Lab Code: MITKEM      Case No.: \_\_\_\_\_      SAS No.: \_\_\_\_\_      SDG No.: A1489

Matrix: (soil/water) SOIL      Lab Sample ID: A1489-22A

Sample wt/vol:      30.7 (g/mL) G      Lab File ID:      S3B9860

Level:      (low/med) LOW      Date Received: 10/11/02

% Moisture: 17      decanted: (Y/N) N      Date Extracted: 10/15/02

Concentrated Extract Volume:      1000(uL)      Date Analyzed: 10/17/02

Injection Volume:      1.0(uL)      Dilution Factor: 1.0

GPC Cleanup:      (Y/N) N      pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG      Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	470	
111-44-4	bis(2-Chloroethyl) Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
111-91-1	bis(2-Chloroethoxy) methane	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	790	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	790	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U
99-09-2	3-Nitroaniline	790	U
83-32-9	Acenaphthene	390	U

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SEDXX100902  
SED0210330 (Dup)

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-22A

Sample wt/vol: 30.7 (g/mL) G

Lab File ID: S3B9860

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 17 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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51-28-5-----	2,4-Dinitrophenol	790	U
100-02-7-----	4-Nitrophenol	790	U
132-64-9-----	Dibenzofuran	390	U
121-14-2-----	2,4-Dinitrotoluene	390	U
84-66-2-----	Diethylphthalate	390	U
7005-72-3-----	4-Chlorophenyl-phenylether	390	U
86-73-7-----	Fluorene	390	U
100-01-6-----	4-Nitroaniline	790	U
534-52-1-----	4,6-Dinitro-2-methylphenol	790	U
86-30-6-----	N-Nitrosodiphenylamine (1)	390	U
101-55-3-----	4-Bromophenyl-phenylether	390	U
118-74-1-----	Hexachlorobenzene	390	U
87-86-5-----	Pentachlorophenol	790	U
85-01-8-----	Phenanthrene	390	U
120-12-7-----	Anthracene	390	U
86-74-8-----	Carbazole	390	U
84-74-2-----	Di-n-butylphthalate	390	U
206-44-0-----	Fluoranthene	390	U
129-00-0-----	Pyrene	390	U
85-68-7-----	Butylbenzylphthalate	390	U
91-94-1-----	3,3'-Dichlorobenzidine	390	U
56-55-3-----	Benzo(a)anthracene	390	U
218-01-9-----	Chrysene	390	U
117-81-7-----	bis(2-Ethylhexyl)phthalate	390	U
117-84-0-----	Di-n-octylphthalate	390	U
205-99-2-----	Benzo(b)fluoranthene	390	U
207-08-9-----	Benzo(k)fluoranthene	390	U
50-32-8-----	Benzo(a)pyrene	390	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	390	U
53-70-3-----	Dibenzo(a,h)anthracene	390	U
191-24-2-----	Benzo(g,h,i)perylene	390	U

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SEDXX100902  
SE00Z10330 (Dup)

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-22A

Sample wt/vol: 30.7 (g/mL) G

Lab File ID: S3B9860

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 17 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 5

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.33	650	JB
2. 872-05-9	1-DECENE	12.46	550	NJ
3. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYL)	18.75	6300	NJ
4. 301-02-0	9-OCTADECENAMIDE, (Z)-	20.04	310	NJ
5.	UNKNOWN	24.31	470	J
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: MITKEM CORPORATION \_\_\_\_\_ Contract: \_\_\_\_\_

 SEDXX100902  
 SE00210330 (DUP)

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_

SDG No.: A1489B\_

Matrix (soil/water): SOIL \_\_\_\_\_ Lab Sample ID: A1489-22A \_\_\_\_\_

Level (low/med): MED \_\_\_\_\_ Date Received: 10/11/02 \_\_\_\_\_

% Solids: 83.0 \_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.15	U		CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation**

Date: 08-Nov-02

CLIENT: GEI Consultants, Inc.

Project: Keyspan

Client Sample ID: SEDXX100902 / SED0210330 (DWP) Collection Date: 10/09/02 15:35

Lab ID: A1489-22

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	2500		220	mg/Kg CaCO3	1	10/24/02 12:26
<b>SOIL AND WASTE PH</b>						
pH	7.9		1.0	pH Units	1	10/21/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED022003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-09C

Sample wt/vol: 5.4 (g/mL) G

Lab File ID: V1F0401

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 33

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	Q
74-87-3	-----Chloromethane	7 U J
75-01-4	-----Vinyl Chloride	7 U
74-83-9	-----Bromomethane	7 U J
75-00-3	-----Chloroethane	7 U J
75-35-4	-----1,1-Dichloroethene	7 U
67-64-1	-----Acetone	12
75-15-0	-----Carbon Disulfide	2 J
75-09-2	-----Methylene Chloride	7 U
156-60-5	-----trans-1,2-Dichloroethene	7 U
75-34-3	-----1,1-Dichloroethane	7 U
78-93-3	-----2-Butanone	7 U
156-59-2	-----cis-1,2-Dichloroethene	7 U
67-66-3	-----Chloroform	7 U
71-55-6	-----1,1,1-Trichloroethane	7 U
56-23-5	-----Carbon Tetrachloride	7 U
107-06-2	-----1,2-Dichloroethane	7 U
71-43-2	-----Benzene	7 U
79-01-6	-----Trichloroethene	7 U
78-87-5	-----1,2-Dichloropropane	7 U
75-27-4	-----Bromodichloromethane	7 U
10061-01-5	-----cis-1,3-Dichloropropene	7 U
108-10-1	-----4-Methyl-2-pentanone	7 U
108-88-3	-----Toluene	7 U
10061-02-6	-----trans-1,3-Dichloropropene	7 U
79-00-5	-----1,1,2-Trichloroethane	7 U
127-18-4	-----Tetrachloroethene	7 U
591-78-6	-----2-Hexanone	7 U
124-48-1	-----Dibromochloromethane	7 U
108-90-7	-----Chlorobenzene	7 U
100-41-4	-----Ethylbenzene	7 U
1330-20-7	-----Xylene (Total)	7 U
100-42-5	-----Styrene	7 U
75-25-2	-----Bromoform	7 U
79-34-5	-----1,1,2,2-Tetrachloroethane	7 U

FORM I VOA

OLM03.0

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED022003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-09C

Sample wt/vol: 5.4 (g/mL) G

Lab File ID: V1F0401

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 33

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 2

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.33	74	J
2. 83-32-9	ACENAPHTHENE	18.32	17	NJ
3.				
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED022003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-09A

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: S3B9956

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 33 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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108-95-2-----	Phenol	98	J
111-44-4-----	bis(2-Chloroethyl) Ether	490	U
95-57-8-----	2-Chlorophenol	490	U
541-73-1-----	1,3-Dichlorobenzene	490	U
106-46-7-----	1,4-Dichlorobenzene	490	U
95-50-1-----	1,2-Dichlorobenzene	490	U
95-48-7-----	2-Methylphenol	490	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	490	U
106-44-5-----	4-Methylphenol	490	U
621-64-7-----	N-Nitroso-di-n-propylamine	490	U
67-72-1-----	Hexachloroethane	490	U
98-95-3-----	Nitrobenzene	490	U
78-59-1-----	Isophorone	490	U
88-75-5-----	2-Nitrophenol	490	U
105-67-9-----	2,4-Dimethylphenol	490	U
120-83-2-----	2,4-Dichlorophenol	490	U
120-82-1-----	1,2,4-Trichlorobenzene	490	U
91-20-3-----	Naphthalene	81	J
106-47-8-----	4-Chloroaniline	490	U J
111-91-1-----	bis(2-Chloroethoxy) methane	490	U
87-68-3-----	Hexachlorobutadiene	490	U
59-50-7-----	4-Chloro-3-Methylphenol	490	U
91-57-6-----	2-Methylnaphthalene	59	J
77-47-4-----	Hexachlorocyclopentadiene	490	U
88-06-2-----	2,4,6-Trichlorophenol	490	U
95-95-4-----	2,4,5-Trichlorophenol	1000	U
91-58-7-----	2-Chloronaphthalene	490	U
88-74-4-----	2-Nitroaniline	1000	U
131-11-3-----	Dimethylphthalate	490	U
208-96-8-----	Acenaphthylene	360	J
606-20-2-----	2,6-Dinitrotoluene	490	U
99-09-2-----	3-Nitroaniline	1000	U J
83-32-9-----	Acenaphthene	490	U

FORM I SV-1

OLM03.0

927

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED022003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-09A

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: S3B9956

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 33 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

51-28-5-----	2,4-Dinitrophenol	1000	U
100-02-7-----	4-Nitrophenol	1000	UJ
132-64-9-----	Dibenzofuran	490	U
121-14-2-----	2,4-Dinitrotoluene	490	U
84-66-2-----	Diethylphthalate	490	U
7005-72-3-----	4-Chlorophenyl-phenylether	490	U
86-73-7-----	Fluorene	78	J
100-01-6-----	4-Nitroaniline	1000	UJ
534-52-1-----	4,6-Dinitro-2-methylphenol	1000	U
86-30-6-----	N-Nitrosodiphenylamine (1)	490	U
101-55-3-----	4-Bromophenyl-phenylether	490	U
118-74-1-----	Hexachlorobenzene	490	U
87-86-5-----	Pentachlorophenol	1000	U
85-01-8-----	Phenanthrene	730	
120-12-7-----	Anthracene	280	J
86-74-8-----	Carbazole	490	UJ
84-74-2-----	Di-n-butylphthalate	490	U
206-44-0-----	Fluoranthene	1300	
129-00-0-----	Pyrene	2100	
85-68-7-----	Butylbenzylphthalate	490	U
91-94-1-----	3,3'-Dichlorobenzidine	490	U
56-55-3-----	Benzo(a)anthracene	920	
218-01-9-----	Chrysene	1000	
117-81-7-----	bis(2-Ethylhexyl)phthalate	250	J
117-84-0-----	Di-n-octylphthalate	430	J
205-99-2-----	Benzo(b)fluoranthene	750	
207-08-9-----	Benzo(k)fluoranthene	240	J
50-32-8-----	Benzo(a)pyrene	610	
193-39-5-----	Indeno(1,2,3-cd)pyrene	370	J
53-70-3-----	Dibenzo(a,h)anthracene	80	J
191-24-2-----	Benzo(g,h,i)perylene	410	J

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED022003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-09A

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: S3B9956

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 33 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

Number TICs found: 18

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 872-05-9	1-DECENE	11.66	630	NJ
2.	UNKNOWN	15.95	500	J
3. 613-12-7	ANTHRACENE, 2-METHYL-	16.00	900	NJ
4.	UNKNOWN	16.18	580	J
5.	UNKNOWN	17.25	10000	J
6. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYL)	17.89	3500	NJ
7.	UNKNOWN	20.39	330	J
8.	UNKNOWN	20.49	460	J
9.	UNKNOWN	21.77	940	J
10. 28553-12-0	1,2-BENZENEDICARBOXYLIC ACID	21.95	5300	NJ
11.	UNKNOWN	22.11	3100	J
12.	UNKNOWN	22.27	2600	J
13.	UNKNOWN	22.43	2600	J
14.	UNKNOWN	22.59	810	J
15.	UNKNOWN	23.27	1200	J
16. 57-88-5	CHOLESTEROL	23.96	1300	NJ
17. 22100-66-9	4,4'-DINITRODIPHENYLSULPHIDE	24.25	450	NJ
18.	UNKNOWN	29.05	600	J
19.				
20.				
21.				
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27.				
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30.				

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED022003

Lab Name: MITKEM\_CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: A1489A

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-09A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 67.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.22	U	*N	CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_

Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_

Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation****Date:** 08-Nov-02**CLIENT:** GEI Consultants, Inc.**Project:** Keyspan**Client Sample ID:** SED022003**Collection Date:** 10/09/02 10:25**Lab ID:** A1489-09

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
		<b>SM2340_S</b>				
Hardness, Calcium/Magnesium (As CaCO3)	290000		280	mg/Kg CaCO3	1	10/24/02 15:38
<b>SOIL AND WASTE PH</b>						
		<b>SW9045C_S</b>				
pH	8.2		1.0	pH Units	1	10/16/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED022033

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-10C

Sample wt/vol: 5.3 (g/mL) G

Lab File ID: V1F0402

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 22

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

74-87-3-----	Chloromethane	6	UJ
75-01-4-----	Vinyl Chloride	6	U
74-83-9-----	Bromomethane	6	UJ
75-00-3-----	Chloroethane	6	UJ
75-35-4-----	1,1-Dichloroethene	6	U
67-64-1-----	Acetone	15	
75-15-0-----	Carbon Disulfide	2	J
75-09-2-----	Methylene Chloride	3	JB
156-60-5-----	trans-1,2-Dichloroethene	6	U
75-34-3-----	1,1-Dichloroethane	6	U
78-93-3-----	2-Butanone	6	U
156-59-2-----	cis-1,2-Dichloroethene	6	U
67-66-3-----	Chloroform	6	U
71-55-6-----	1,1,1-Trichloroethane	6	U
56-23-5-----	Carbon Tetrachloride	6	U
107-06-2-----	1,2-Dichloroethane	6	U
71-43-2-----	Benzene	6	U
79-01-6-----	Trichloroethene	6	U
78-87-5-----	1,2-Dichloropropane	6	U
75-27-4-----	Bromodichloromethane	6	U
10061-01-5-----	cis-1,3-Dichloropropene	6	U
108-10-1-----	4-Methyl-2-pentanone	6	U
108-88-3-----	Toluene	6	U
10061-02-6-----	trans-1,3-Dichloropropene	6	U
79-00-5-----	1,1,2-Trichloroethane	6	U
127-18-4-----	Tetrachloroethene	6	U
591-78-6-----	2-Hexanone	6	U
124-48-1-----	Dibromochloromethane	6	U
108-90-7-----	Chlorobenzene	6	U
100-41-4-----	Ethylbenzene	6	U
1330-20-7-----	Xylene (Total)	6	U
100-42-5-----	Styrene	6	U
75-25-2-----	Bromoform	6	U
79-34-5-----	1,1,2,2-Tetrachloroethane	6	U

FORM I VOA

OLM03.0

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED022033

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-10C

Sample wt/vol: 5.3 (g/mL) G

Lab File ID: V1F0402

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 22

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED022033

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-10A

Sample wt/vol: 30.9 (g/mL) G

Lab File ID: S3C0243

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 22 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/13/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

108-95-2-----	Phenol	64	J
111-44-4-----	bis(2-Chloroethyl) Ether	410	U
95-57-8-----	2-Chlorophenol	410	U
541-73-1-----	1,3-Dichlorobenzene	410	U
106-46-7-----	1,4-Dichlorobenzene	410	U
95-50-1-----	1,2-Dichlorobenzene	410	U
95-48-7-----	2-Methylphenol	410	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	410	U
106-44-5-----	4-Methylphenol	410	U
621-64-7-----	N-Nitroso-di-n-propylamine	410	U
67-72-1-----	Hexachloroethane	410	U
98-95-3-----	Nitrobenzene	410	U
78-59-1-----	Isophorone	410	U
88-75-5-----	2-Nitrophenol	410	U
105-67-9-----	2,4-Dimethylphenol	410	U
120-83-2-----	2,4-Dichlorophenol	410	U
120-82-1-----	1,2,4-Trichlorobenzene	410	U
91-20-3-----	Naphthalene	410	U
106-47-8-----	4-Chloroaniline	410	U
111-91-1-----	bis(2-Chloroethoxy) methane	410	U
87-68-3-----	Hexachlorobutadiene	410	U
59-50-7-----	4-Chloro-3-Methylphenol	410	U
91-57-6-----	2-Methylnaphthalene	410	U
77-47-4-----	Hexachlorocyclopentadiene	410	U
88-06-2-----	2,4,6-Trichlorophenol	410	U
95-95-4-----	2,4,5-Trichlorophenol	830	U
91-58-7-----	2-Chloronaphthalene	410	U
88-74-4-----	2-Nitroaniline	830	U
131-11-3-----	Dimethylphthalate	410	U
208-96-8-----	Acenaphthylene	180	J
606-20-2-----	2,6-Dinitrotoluene	410	U
99-09-2-----	3-Nitroaniline	830	U
83-32-9-----	Acenaphthene	410	U

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED022033

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-10A

Sample wt/vol: 30.9 (g/mL) G

Lab File ID: S3C0243

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 22 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 11/13/02

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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51-28-5-----	2,4-Dinitrophenol	830	U
100-02-7-----	4-Nitrophenol	830	U
132-64-9-----	Dibenzofuran	410	U
121-14-2-----	2,4-Dinitrotoluene	410	U
84-66-2-----	Diethylphthalate	410	U
7005-72-3-----	4-Chlorophenyl-phenylether	410	U
86-73-7-----	Fluorene	52	J
100-01-6-----	4-Nitroaniline	830	U
534-52-1-----	4,6-Dinitro-2-methylphenol	830	U
86-30-6-----	N-Nitrosodiphenylamine (1)	410	U
101-55-3-----	4-Bromophenyl-phenylether	410	U
118-74-1-----	Hexachlorobenzene	410	U
87-86-5-----	Pentachlorophenol	830	U
85-01-8-----	Phenanthrene	370	J
120-12-7-----	Anthracene	160	J
86-74-8-----	Carbazole	410	U
84-74-2-----	Di-n-butylphthalate	410	U
206-44-0-----	Fluoranthene	680	
129-00-0-----	Pyrene	1500	
85-68-7-----	Butylbenzylphthalate	410	U
91-94-1-----	3,3'-Dichlorobenzidine	410	U
56-55-3-----	Benzo(a)anthracene	520	
218-01-9-----	Chrysene	530	
117-81-7-----	bis(2-Ethylhexyl)phthalate	76	J
117-84-0-----	Di-n-octylphthalate	410	U
205-99-2-----	Benzo(b)fluoranthene	390	J
207-08-9-----	Benzo(k)fluoranthene	150	J
50-32-8-----	Benzo(a)pyrene	430	
193-39-5-----	Indeno(1,2,3-cd)pyrene	190	J
53-70-3-----	Dibenzo(a,h)anthracene	57	J
191-24-2-----	Benzo(g,h,i)perylene	220	J

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED022033

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-10A

Sample wt/vol: 30.9 (g/mL) G

Lab File ID: S3C0243

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 22 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/13/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 12

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.70	840	J
2. 872-05-9	1-DECENE	13.88	340	NJ
3.	UNKNOWN	14.86	420	J
4. 2437-56-1	1-TRIDECENE	16.08	260	NJ
5. 779-02-2	ANTHRACENE, 9-METHYL-	18.30	290	NJ
6.	UNKNOWN	18.52	580	J
7. 3674-66-6	PHENANTHRENE, 2,5-DIMETHYL-	19.45	290	NJ
8. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYL)	20.35	860	NJ
9. 238-84-6	11H-BENZO[A] FLUORENE	20.91	260	NJ
10. 3353-12-6	PYRENE, 4-METHYL-	21.12	200	NJ
11. 3442-78-2	PYRENE, 2-METHYL-	21.36	190	NJ
12. 192-97-2	BENZO[E] PYRENE	25.36	310	NJ
13.				
14.				
15.				
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED022033

Lab Name: MITKEM\_CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: A1489A\_

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-10A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 78.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.18	U	*N	CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

**Mitkem Corporation**

Date: 08-Nov-02

CLIENT: GEI Consultants, Inc.

Project: Keyspan

Client Sample ID: SED022033

Collection Date: 10/09/02 10:35

Lab ID: A1489-10

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO <sub>3</sub> )	19000		220	mg/Kg CaCO <sub>3</sub>	1	10/24/02 15:38
<b>SOIL AND WASTE PH</b>						
pH	8.4		1.0	pH Units	1	10/16/02 0:00

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED023003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-07C

Sample wt/vol: 5.2 (g/mL) G

Lab File ID: V1F0318

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 19

Date Analyzed: 10/12/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

74-87-3	-----Chloromethane	6	U
75-01-4	-----Vinyl Chloride	6	U
74-83-9	-----Bromomethane	6	U
75-00-3	-----Chloroethane	6	U
75-35-4	-----1,1-Dichloroethene	6	U
67-64-1	-----Acetone	50	
75-15-0	-----Carbon Disulfide	6	U
75-09-2	-----Methylene Chloride	5	JB
156-60-5	-----trans-1,2-Dichloroethene	6	U
75-34-3	-----1,1-Dichloroethane	6	U
78-93-3	-----2-Butanone	6	U
156-59-2	-----cis-1,2-Dichloroethene	6	U
67-66-3	-----Chloroform	6	U
71-55-6	-----1,1,1-Trichloroethane	6	U
56-23-5	-----Carbon Tetrachloride	6	U
107-06-2	-----1,2-Dichloroethane	6	U
71-43-2	-----Benzene	6	U
79-01-6	-----Trichloroethene	6	U
78-87-5	-----1,2-Dichloropropane	6	U
75-27-4	-----Bromodichloromethane	6	U
10061-01-5	-----cis-1,3-Dichloropropene	6	U
108-10-1	-----4-Methyl-2-pentanone	6	U J
108-88-3	-----Toluene	2	J
10061-02-6	-----trans-1,3-Dichloropropene	6	U
79-00-5	-----1,1,2-Trichloroethane	6	U
127-18-4	-----Tetrachloroethene	6	U
591-78-6	-----2-Hexanone	6	U
124-48-1	-----Dibromochloromethane	6	U
108-90-7	-----Chlorobenzene	4	J
100-41-4	-----Ethylbenzene	6	U
1330-20-7	-----Xylene (Total)	6	U
100-42-5	-----Styrene	6	U
75-25-2	-----Bromoform	6	U
79-34-5	-----1,1,2,2-Tetrachloroethane	6	U

FORM I VOA

OLM03.0



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED023003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-07C

Sample wt/vol: 5.2 (g/mL) G

Lab File ID: V1F0318

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 19

Date Analyzed: 10/12/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED023003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-07A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9961

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

108-95-2-----	Phenol	2000	U
111-44-4-----	bis(2-Chloroethyl) Ether	2000	U
95-57-8-----	2-Chlorophenol	2000	U
541-73-1-----	1,3-Dichlorobenzene	2000	U
106-46-7-----	1,4-Dichlorobenzene	2000	U
95-50-1-----	1,2-Dichlorobenzene	2000	U
95-48-7-----	2-Methylphenol	2000	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	2000	U
106-44-5-----	4-Methylphenol	2000	U
621-64-7-----	N-Nitroso-di-n-propylamine	2000	U
67-72-1-----	Hexachloroethane	2000	U
98-95-3-----	Nitrobenzene	2000	U
78-59-1-----	Isophorone	2000	U
88-75-5-----	2-Nitrophenol	2000	U
105-67-9-----	2,4-Dimethylphenol	2000	U
120-83-2-----	2,4-Dichlorophenol	2000	U
120-82-1-----	1,2,4-Trichlorobenzene	2000	U
91-20-3-----	Naphthalene	2000	U
106-47-8-----	4-Chloroaniline	2000	UJ
111-91-1-----	bis(2-Chloroethoxy) methane	2000	U
87-68-3-----	Hexachlorobutadiene	2000	U
59-50-7-----	4-Chloro-3-Methylphenol	2000	U
91-57-6-----	2-Methylnaphthalene	2000	U
77-47-4-----	Hexachlorocyclopentadiene	2000	U
88-06-2-----	2,4,6-Trichlorophenol	2000	U
95-95-4-----	2,4,5-Trichlorophenol	4000	U
91-58-7-----	2-Chloronaphthalene	2000	U
88-74-4-----	2-Nitroaniline	4000	U
131-11-3-----	Dimethylphthalate	2000	U
208-96-8-----	Acenaphthylene	250	J
606-20-2-----	2,6-Dinitrotoluene	2000	U
99-09-2-----	3-Nitroaniline	4000	UJ
83-32-9-----	Acenaphthene	2000	U

FORM I SV-1

OLM03.0

1000

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED023003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-07A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9961

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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51-28-5-----	2,4-Dinitrophenol	4000	U
100-02-7-----	4-Nitrophenol	4000	UJ
132-64-9-----	Dibenzofuran	2000	U
121-14-2-----	2,4-Dinitrotoluene	2000	U
84-66-2-----	Diethylphthalate	2000	U
7005-72-3-----	4-Chlorophenyl-phenylether	2000	U
86-73-7-----	Fluorene	2000	U
100-01-6-----	4-Nitroaniline	4000	UJ
534-52-1-----	4,6-Dinitro-2-methylphenol	4000	U
86-30-6-----	N-Nitrosodiphenylamine (1)	2000	U
101-55-3-----	4-Bromophenyl-phenylether	2000	U
118-74-1-----	Hexachlorobenzene	2000	U
87-86-5-----	Pentachlorophenol	4000	U
85-01-8-----	Phenanthrene	340	J
120-12-7-----	Anthracene	2000	U
86-74-8-----	Carbazole	2000	UJ
84-74-2-----	Di-n-butylphthalate	2000	U
206-44-0-----	Fluoranthene	620	J
129-00-0-----	Pyrene	1100	J
85-68-7-----	Butylbenzylphthalate	2000	U
91-94-1-----	3,3'-Dichlorobenzidine	2000	U
56-55-3-----	Benzo(a)anthracene	490	J
218-01-9-----	Chrysene	570	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	2000	U
117-84-0-----	Di-n-octylphthalate	2000	U
205-99-2-----	Benzo(b)fluoranthene	440	J
207-08-9-----	Benzo(k)fluoranthene	2000	U
50-32-8-----	Benzo(a)pyrene	370	J
193-39-5-----	Indeno(1,2,3-cd)pyrene	230	J
53-70-3-----	Dibenzo(a,h)anthracene	2000	U
191-24-2-----	Benzo(g,h,i)perylene	260	J

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED023003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-07A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9961

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 2

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 10544-50-0	SULFUR, MOL. (S8)	17.17	25000	NJ
2. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYL)	17.87	4900	NT
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED023003

Lab Name: MITKEM\_CORPORATION Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: A1489A

Matrix (soil/water): SOIL Lab Sample ID: A1489-07A

Level (low/med): MED Date Received: 10/11/02

% Solids: 81.0

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.17	U	*N	CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

**Mitkem Corporation****Date:** 08-Nov-02

**CLIENT:** GEI Consultants, Inc.  
**Client Sample ID:** SED023003  
**Lab ID:** A1489-07

**Project:** Keyspan  
**Collection Date:** 10/09/02 11:00

<b>Analyses</b>	<b>Result</b>	<b>Qual</b>	<b>Limit</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	130000		250	mg/Kg CaCO3	1	10/24/02 15:38
<b>SOIL AND WASTE PH</b>						
pH	8.0		1.0	pH Units	1	10/16/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

**2166**

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED023033

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-08C

Sample wt/vol: 5.1 (g/mL) G

Lab File ID: V1F0400

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 26

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (mL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/KG	
74-87-3	-----Chloromethane	7	U	J
75-01-4	-----Vinyl Chloride	7	U	
74-83-9	-----Bromomethane	7	U	J
75-00-3	-----Chloroethane	7	U	J
75-35-4	-----1,1-Dichloroethene	7	U	
67-64-1	-----Acetone	21		
75-15-0	-----Carbon Disulfide	2	J	
75-09-2	-----Methylene Chloride	3	JB	
156-60-5	-----trans-1,2-Dichloroethene	7	U	
75-34-3	-----1,1-Dichloroethane	7	U	
78-93-3	-----2-Butanone	7	U	
156-59-2	-----cis-1,2-Dichloroethene	7	U	
67-66-3	-----Chloroform	7	U	
71-55-6	-----1,1,1-Trichloroethane	7	U	
56-23-5	-----Carbon Tetrachloride	7	U	
107-06-2	-----1,2-Dichloroethane	7	U	
71-43-2	-----Benzene	7	U	
79-01-6	-----Trichloroethene	7	U	
78-87-5	-----1,2-Dichloropropane	7	U	
75-27-4	-----Bromodichloromethane	7	U	
10061-01-5	-----cis-1,3-Dichloropropene	7	U	
108-10-1	-----4-Methyl-2-pentanone	7	U	
108-88-3	-----Toluene	7	U	
10061-02-6	-----trans-1,3-Dichloropropene	7	U	
79-00-5	-----1,1,2-Trichloroethane	7	U	
127-18-4	-----Tetrachloroethene	7	U	
591-78-6	-----2-Hexanone	7	U	
124-48-1	-----Dibromochloromethane	7	U	
108-90-7	-----Chlorobenzene	7	U	
100-41-4	-----Ethylbenzene	7	U	
1330-20-7	-----Xylene (Total)	7	U	
100-42-5	-----Styrene	7	U	
75-25-2	-----Bromoform	7	U	
79-34-5	-----1,1,2,2-Tetrachloroethane	7	U	

FORM I VOA

OLM03.0

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED023033

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-08C

Sample wt/vol: 5.1 (g/mL) G

Lab File ID: V1F0400

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 26

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 5

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	15.32	15	J
2. 90-12-0	NAPHTHALENE, 1-METHYL-	16.58	32	NJ
3. 581-40-8	NAPHTHALENE, 2,3-DIMETHYL-	17.61	15	NJ
4. 581-40-8	NAPHTHALENE, 2,3-DIMETHYL-	17.84	7	NJ
5. 83-32-9	ACENAPHTHENE	18.32	44	NJ
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED023033

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-08A

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: S3B9962

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 26 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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108-95-2-----	Phenol	2200	U
111-44-4-----	bis(2-Chloroethyl) Ether	2200	U
95-57-8-----	2-Chlorophenol	2200	U
541-73-1-----	1,3-Dichlorobenzene	2200	U
106-46-7-----	1,4-Dichlorobenzene	2200	U
95-50-1-----	1,2-Dichlorobenzene	2200	U
95-48-7-----	2-Methylphenol	2200	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	2200	U
106-44-5-----	4-Methylphenol	2200	U
621-64-7-----	N-Nitroso-di-n-propylamine	2200	U
67-72-1-----	Hexachloroethane	2200	U
98-95-3-----	Nitrobenzene	2200	U
78-59-1-----	Isophorone	2200	U
88-75-5-----	2-Nitrophenol	2200	U
105-67-9-----	2,4-Dimethylphenol	2200	U
120-83-2-----	2,4-Dichlorophenol	2200	U
120-82-1-----	1,2,4-Trichlorobenzene	2200	U
91-20-3-----	Naphthalene	280	J
106-47-8-----	4-Chloroaniline	2200	U J
111-91-1-----	bis(2-Chloroethoxy) methane	2200	U
87-68-3-----	Hexachlorobutadiene	2200	U
59-50-7-----	4-Chloro-3-Methylphenol	2200	U
91-57-6-----	2-Methylnaphthalene	2200	U
77-47-4-----	Hexachlorocyclopentadiene	2200	U
88-06-2-----	2,4,6-Trichlorophenol	2200	U
95-95-4-----	2,4,5-Trichlorophenol	4500	U
91-58-7-----	2-Chloronaphthalene	2200	U
88-74-4-----	2-Nitroaniline	4500	U
131-11-3-----	Dimethylphthalate	2200	U
208-96-8-----	Acenaphthylene	800	J
606-20-2-----	2,6-Dinitrotoluene	2200	U
99-09-2-----	3-Nitroaniline	4500	U J
83-32-9-----	Acenaphthene	2200	U

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED023033

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-08A

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: S3B9962

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 26 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

51-28-5-----	2,4-Dinitrophenol	4500	U
100-02-7-----	4-Nitrophenol	4500	U J
132-64-9-----	Dibenzofuran	2200	U
121-14-2-----	2,4-Dinitrotoluene	2200	U
84-66-2-----	Diethylphthalate	2200	U
7005-72-3-----	4-Chlorophenyl-phenylether	2200	U
86-73-7-----	Fluorene	260	J
100-01-6-----	4-Nitroaniline	4500	U J
534-52-1-----	4,6-Dinitro-2-methylphenol	4500	U
86-30-6-----	N-Nitrosodiphenylamine (1)	2200	U
101-55-3-----	4-Bromophenyl-phenylether	2200	U
118-74-1-----	Hexachlorobenzene	2200	U
87-86-5-----	Pentachlorophenol	4500	U
85-01-8-----	Phenanthrene	1800	J
120-12-7-----	Anthracene	650	J
86-74-8-----	Carbazole	2200	U J
84-74-2-----	Di-n-butylphthalate	2200	U
206-44-0-----	Fluoranthene	3200	
129-00-0-----	Pyrene	5200	
85-68-7-----	Butylbenzylphthalate	2200	U
91-94-1-----	3,3'-Dichlorobenzidine	2200	U
56-55-3-----	Benzo(a)anthracene	2100	J
218-01-9-----	Chrysene	2200	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	2200	U
117-84-0-----	Di-n-octylphthalate	2200	U
205-99-2-----	Benzo(b)fluoranthene	1700	J
207-08-9-----	Benzo(k)fluoranthene	660	J
50-32-8-----	Benzo(a)pyrene	1700	J
193-39-5-----	Indeno(1,2,3-cd)pyrene	780	J
53-70-3-----	Dibenzo(a,h)anthracene	2200	U
191-24-2-----	Benzo(g,h,i)perylene	860	J

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED023033

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-08A

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: S3B9962

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 26 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 4

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 100-80-1	BENZENE, 1-ETHENYL-3-METHYL-	5.75	1100	NJ
2.	UNKNOWN	15.95	1000	J
3. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYL)	17.88	6600	NJ
4. 192-97-2	BENZO[E] PYRENE	22.44	1500	NJ
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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED023033

Lab Name: MITKEM\_CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: A1489A

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-08A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 74.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.18	U	J*N	CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

**Mitkem Corporation****Date:** 08-Nov-02**CLIENT:** GEI Consultants, Inc.**Project:** Keyspan**Client Sample ID:** SED023033**Collection Date:** 10/09/02 11:10**Lab ID:** A1489-08

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	42000	SM2340_S	260	mg/Kg CaCO3	1	10/24/02 15:38
<b>SOIL AND WASTE PH</b>						
pH	8.8	SW9045C_S	1.0	pH Units	1	10/16/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

2167

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED024003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-18C

Sample wt/vol: 5.2 (g/mL) G

Lab File ID: V1F0410

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 15

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
74-87-3	-----Chloromethane	6	U	J
75-01-4	-----Vinyl Chloride	6	U	
74-83-9	-----Bromomethane	6	U	J
75-00-3	-----Chloroethane	6	U	J
75-35-4	-----1,1-Dichloroethene	6	U	
67-64-1	-----Acetone	6	U	
75-15-0	-----Carbon Disulfide	6	U	
75-09-2	-----Methylene Chloride	2	JB	
156-60-5	-----trans-1,2-Dichloroethene	6	U	
75-34-3	-----1,1-Dichloroethane	6	U	
78-93-3	-----2-Butanone	6	U	
156-59-2	-----cis-1,2-Dichloroethene	6	U	
67-66-3	-----Chloroform	6	U	
71-55-6	-----1,1,1-Trichloroethane	6	U	
56-23-5	-----Carbon Tetrachloride	6	U	
107-06-2	-----1,2-Dichloroethane	6	U	
71-43-2	-----Benzene	6	U	
79-01-6	-----Trichloroethene	6	U	
78-87-5	-----1,2-Dichloropropane	6	U	
75-27-4	-----Bromodichloromethane	6	U	
10061-01-5	-----cis-1,3-Dichloropropene	6	U	
108-10-1	-----4-Methyl-2-pentanone	6	U	
108-88-3	-----Toluene	6	U	
10061-02-6	-----trans-1,3-Dichloropropene	6	U	
79-00-5	-----1,1,2-Trichloroethane	6	U	
127-18-4	-----Tetrachloroethene	6	U	
591-78-6	-----2-Hexanone	6	U	
124-48-1	-----Dibromochloromethane	6	U	
108-90-7	-----Chlorobenzene	6	U	
100-41-4	-----Ethylbenzene	6	U	
1330-20-7	-----Xylene (Total)	6	U	
100-42-5	-----Styrene	6	U	
75-25-2	-----Bromoform	6	U	
79-34-5	-----1,1,2,2-Tetrachloroethane	6	U	

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED024003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-18C

Sample wt/vol: 5.2 (g/mL) G

Lab File ID: V1F0410

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 15

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1.				
2.				
3.				
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED024003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-18A

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: S1D1527

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 15

decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/21/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

108-95-2-----	Phenol	390	U
111-44-4-----	bis(2-Chloroethyl) Ether	390	UJ
95-57-8-----	2-Chlorophenol	390	U
541-73-1-----	1,3-Dichlorobenzene	390	UJ
106-46-7-----	1,4-Dichlorobenzene	390	UJ
95-50-1-----	1,2-Dichlorobenzene	390	UJ
95-48-7-----	2-Methylphenol	390	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	390	UJ
106-44-5-----	4-Methylphenol	390	U
621-64-7-----	N-Nitroso-di-n-propylamine	390	UJ
67-72-1-----	Hexachloroethane	390	UJ
98-95-3-----	Nitrobenzene	390	UJ
78-59-1-----	Isophorone	390	UJ
88-75-5-----	2-Nitrophenol	390	U
105-67-9-----	2,4-Dimethylphenol	390	U
120-83-2-----	2,4-Dichlorophenol	390	U
120-82-1-----	1,2,4-Trichlorobenzene	390	UJ
91-20-3-----	Naphthalene	390	UJ
106-47-8-----	4-Chloroaniline	390	UJ
111-91-1-----	bis(2-Chloroethoxy) methane	390	UJ
87-68-3-----	Hexachlorobutadiene	390	UJ
59-50-7-----	4-Chloro-3-Methylphenol	390	U
91-57-6-----	2-Methylnaphthalene	390	UJ
77-47-4-----	Hexachlorocyclopentadiene	390	UJ
88-06-2-----	2,4,6-Trichlorophenol	390	U
95-95-4-----	2,4,5-Trichlorophenol	780	U
91-58-7-----	2-Chloronaphthalene	390	UJ
88-74-4-----	2-Nitroaniline	780	UJ
131-11-3-----	Dimethylphthalate	390	UJ
208-96-8-----	Acenaphthylene	390	UJ
606-20-2-----	2,6-Dinitrotoluene	390	UJ
99-09-2-----	3-Nitroaniline	780	UJ
83-32-9-----	Acenaphthene	390	UJ



1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED024003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-18A

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: S1D1527

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 15 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/21/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	Q
51-28-5-----	2,4-Dinitrophenol	780 U
100-02-7-----	4-Nitrophenol	780 U
132-64-9-----	Dibenzofuran	390 U J
121-14-2-----	2,4-Dinitrotoluene	390 U J
84-66-2-----	Diethylphthalate	390 U J
7005-72-3-----	4-Chlorophenyl-phenylether	390 U J
86-73-7-----	Fluorene	390 U J
100-01-6-----	4-Nitroaniline	780 U
534-52-1-----	4,6-Dinitro-2-methylphenol	780 U
86-30-6-----	N-Nitrosodiphenylamine (1)	390 U J
101-55-3-----	4-Bromophenyl-phenylether	390 U J
118-74-1-----	Hexachlorobenzene	390 U J
87-86-5-----	Pentachlorophenol	780 U
85-01-8-----	Phenanthrene	390 U J
120-12-7-----	Anthracene	390 U J
86-74-8-----	Carbazole	390 U J
84-74-2-----	Di-n-butylphthalate	390 U J
206-44-0-----	Fluoranthene	43 J
129-00-0-----	Pyrene	100 J
85-68-7-----	Butylbenzylphthalate	390 U J
91-94-1-----	3,3'-Dichlorobenzidine	390 U J
56-55-3-----	Benzo(a)anthracene	43 J
218-01-9-----	Chrysene	390 U J
117-81-7-----	bis(2-Ethylhexyl)phthalate	390 U J
117-84-0-----	Di-n-octylphthalate	240 J
205-99-2-----	Benzo(b)fluoranthene	390 U J
207-08-9-----	Benzo(k)fluoranthene	390 U J
50-32-8-----	Benzo(a)pyrene	390 U J
193-39-5-----	Indeno(1,2,3-cd)pyrene	390 U J
53-70-3-----	Dibenzo(a,h)anthracene	390 U J
191-24-2-----	Benzo(g,h,i)perylene	390 U J

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED024003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-18A

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: S1D1527

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 15 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/21/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 12

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.34	940	JB
2.	UNKNOWN	24.51	220	J
3. 28553-12-0	1,2-BENZENEDICARBOXYLIC ACID	24.91	530	NJ
4.	UNKNOWN	24.99	480	J
5. 28553-12-0	1,2-BENZENEDICARBOXYLIC ACID	25.13	1600	NJ
6. 28553-12-0	1,2-BENZENEDICARBOXYLIC ACID	25.21	570	NJ
7.	UNKNOWN	25.34	1500	J
8.	UNKNOWN	25.41	740	J
9.	UNKNOWN	25.55	1400	J
10.	UNKNOWN	25.64	630	J
11.	UNKNOWN	25.77	950	J
12.	UNKNOWN	26.01	630	J
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED024003RE

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-18ARE

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: S2D0083

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 15 decanted: (Y/N) N

Date Extracted: 10/28/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/01/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

108-95-2-----	Phenol	380	U J
111-44-4-----	bis(2-Chloroethyl) Ether	380	U J
95-57-8-----	2-Chlorophenol	380	U J
541-73-1-----	1,3-Dichlorobenzene	380	U J
106-46-7-----	1,4-Dichlorobenzene	380	U J
95-50-1-----	1,2-Dichlorobenzene	380	U J
95-48-7-----	2-Methylphenol	380	U J
108-60-1-----	2,2'-oxybis(1-Chloropropane)	380	U J
106-44-5-----	4-Methylphenol	380	U J
621-64-7-----	N-Nitroso-di-n-propylamine	380	U J
67-72-1-----	Hexachloroethane	380	U J
98-95-3-----	Nitrobenzene	380	U J
78-59-1-----	Isophorone	380	U J
88-75-5-----	2-Nitrophenol	380	U J
105-67-9-----	2,4-Dimethylphenol	380	U J
120-83-2-----	2,4-Dichlorophenol	380	U J
120-82-1-----	1,2,4-Trichlorobenzene	380	U J
91-20-3-----	Naphthalene	380	U J
106-47-8-----	4-Chloroaniline	380	U J
111-91-1-----	bis(2-Chloroethoxy)methane	380	U J
87-68-3-----	Hexachlorobutadiene	380	U J
59-50-7-----	4-Chloro-3-Methylphenol	380	U J
91-57-6-----	2-Methylnaphthalene	380	U J
77-47-4-----	Hexachlorocyclopentadiene	380	U J
88-06-2-----	2,4,6-Trichlorophenol	380	U J
95-95-4-----	2,4,5-Trichlorophenol	780	U J
91-58-7-----	2-Chloronaphthalene	380	U J
88-74-4-----	2-Nitroaniline	780	U J
131-11-3-----	Dimethylphthalate	380	U J
208-96-8-----	Acenaphthylene	45	J
606-20-2-----	2,6-Dinitrotoluene	380	U J
99-09-2-----	3-Nitroaniline	780	U J
83-32-9-----	Acenaphthene	380	U J

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED024003RE

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-18ARE

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: S2D0083

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 15 decanted: (Y/N) N

Date Extracted: 10/28/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/01/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

51-28-5-----	2,4-Dinitrophenol	780	UJ
100-02-7-----	4-Nitrophenol	780	UJ
132-64-9-----	Dibenzofuran	380	UJ
121-14-2-----	2,4-Dinitrotoluene	380	UJ
84-66-2-----	Diethylphthalate	380	UJ
7005-72-3-----	4-Chlorophenyl-phenylether	380	UJ
86-73-7-----	Fluorene	380	UJ
100-01-6-----	4-Nitroaniline	780	UJ
534-52-1-----	4,6-Dinitro-2-methylphenol	780	UJ
86-30-6-----	N-Nitrosodiphenylamine (1)	380	UJ
101-55-3-----	4-Bromophenyl-phenylether	380	UJ
118-74-1-----	Hexachlorobenzene	380	UJ
87-86-5-----	Pentachlorophenol	780	UJ
85-01-8-----	Phenanthrene	140	J
120-12-7-----	Anthracene	59	J
86-74-8-----	Carbazole	380	UJ
84-74-2-----	Di-n-butylphthalate	380	UJ
206-44-0-----	Fluoranthene	200	J
129-00-0-----	Pyrene	670	J
85-68-7-----	Butylbenzylphthalate	380	UJ
91-94-1-----	3,3'-Dichlorobenzidine	380	UJ
56-55-3-----	Benzo(a)anthracene	180	J
218-01-9-----	Chrysene	180	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	81	J
117-84-0-----	Di-n-octylphthalate	1200	J
205-99-2-----	Benzo(b)fluoranthene	140	J
207-08-9-----	Benzo(k)fluoranthene	75	J
50-32-8-----	Benzo(a)pyrene	180	J
193-39-5-----	Indeno(1,2,3-cd)pyrene	380	UJ
53-70-3-----	Dibenzo(a,h)anthracene	380	UJ
191-24-2-----	Benzo(g,h,i)perylene	380	UJ

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED024003RE

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-18ARE

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: S2D0083

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 15 decanted: (Y/N) N

Date Extracted: 10/28/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/01/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 16

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.40	850	JB
2.	UNKNOWN	19.86	1200	J
3. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	19.91	3500	NJ
4. 123-95-5	OCTADECANOIC ACID, BUTYL EST	21.31	810	NJ
5.	UNKNOWN	23.39	1200	J
6.	UNKNOWN	23.67	2200	J
7. 28553-12-0	1,2-BENZENEDICARBOXYLIC ACID	23.75	6300	NJ
8.	UNKNOWN	23.82	3600	J
9.	UNKNOWN	23.93	9200	J
10.	UNKNOWN	24.00	3400	J
11.	UNKNOWN	24.10	8200	J
12.	UNKNOWN	24.16	2800	J
13.	UNKNOWN	24.27	6800	J
14.	UNKNOWN	24.32	2600	J
15.	UNKNOWN	24.43	4700	J
16.	UNKNOWN	24.61	2200	J
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## INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED024003

Lab Name: MITKEM\_CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_

SDG No.: A1489B\_

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-18A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 85.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.17	U		CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation**

Date: 08-Nov-02

CLIENT: GEI Consultants, Inc.

Project: Keyspan

Client Sample ID: SED024003

Collection Date: 10/09/02 16:05

Lab ID: A1489-18

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO <sub>3</sub> )	36000	SM2340_S	230	mg/Kg CaCO <sub>3</sub>	1	10/24/02 15:38
<b>SOIL AND WASTE PH</b>						
pH	7.7	SW9045C_S	1.0	pH Units	1	10/21/02 0:00

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0240330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-19C

Sample wt/vol: 5.1 (g/mL) G

Lab File ID: V1F0411

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 19

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (mL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

74-87-3-----	Chloromethane	6	U J
75-01-4-----	Vinyl Chloride	6	U
74-83-9-----	Bromomethane	6	U J
75-00-3-----	Chloroethane	6	U J
75-35-4-----	1,1-Dichloroethene	6	U
67-64-1-----	Acetone	6	J
75-15-0-----	Carbon Disulfide	6	U
75-09-2-----	Methylene Chloride	2	JB
156-60-5-----	trans-1,2-Dichloroethene	6	U
75-34-3-----	1,1-Dichloroethane	6	U
78-93-3-----	2-Butanone	6	U
156-59-2-----	cis-1,2-Dichloroethene	6	U
67-66-3-----	Chloroform	6	U
71-55-6-----	1,1,1-Trichloroethane	6	U
56-23-5-----	Carbon Tetrachloride	6	U
107-06-2-----	1,2-Dichloroethane	6	U
71-43-2-----	Benzene	6	U
79-01-6-----	Trichloroethene	6	U
78-87-5-----	1,2-Dichloropropane	6	U
75-27-4-----	Bromodichloromethane	6	U
10061-01-5-----	cis-1,3-Dichloropropene	6	U
108-10-1-----	4-Methyl-2-pentanone	6	U
108-88-3-----	Toluene	6	U
10061-02-6-----	trans-1,3-Dichloropropene	6	U
79-00-5-----	1,1,2-Trichloroethane	6	U
127-18-4-----	Tetrachloroethene	6	U
591-78-6-----	2-Hexanone	6	U
124-48-1-----	Dibromochloromethane	6	U
108-90-7-----	Chlorobenzene	6	U
100-41-4-----	Ethylbenzene	6	U
1330-20-7-----	Xylene (Total)	6	U
100-42-5-----	Styrene	6	U
75-25-2-----	Bromoform	6	U
79-34-5-----	1,1,2,2-Tetrachloroethane	6	U



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0240330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-19C

Sample wt/vol: 5.1 (g/mL) G

Lab File ID: V1F0411

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 19

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0240330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-19A

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: S1D1528

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/21/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

108-95-2-----	Phenol	400	U
111-44-4-----	bis(2-Chloroethyl) Ether	400	U
95-57-8-----	2-Chlorophenol	400	U
541-73-1-----	1,3-Dichlorobenzene	400	U
106-46-7-----	1,4-Dichlorobenzene	400	U
95-50-1-----	1,2-Dichlorobenzene	400	U
95-48-7-----	2-Methylphenol	400	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	400	U
106-44-5-----	4-Methylphenol	400	U
621-64-7-----	N-Nitroso-di-n-propylamine	400	U
67-72-1-----	Hexachloroethane	400	U
98-95-3-----	Nitrobenzene	400	U
78-59-1-----	Isophorone	400	U
88-75-5-----	2-Nitrophenol	400	U
105-67-9-----	2,4-Dimethylphenol	400	U
120-83-2-----	2,4-Dichlorophenol	400	U
120-82-1-----	1,2,4-Trichlorobenzene	400	U
91-20-3-----	Naphthalene	400	U
106-47-8-----	4-Chloroaniline	400	U
111-91-1-----	bis(2-Chloroethoxy) methane	400	U
87-68-3-----	Hexachlorobutadiene	400	U
59-50-7-----	4-Chloro-3-Methylphenol	400	U
91-57-6-----	2-Methylnaphthalene	400	U
77-47-4-----	Hexachlorocyclopentadiene	400	U
88-06-2-----	2,4,6-Trichlorophenol	400	U
95-95-4-----	2,4,5-Trichlorophenol	820	U
91-58-7-----	2-Chloronaphthalene	400	U
88-74-4-----	2-Nitroaniline	820	U
131-11-3-----	Dimethylphthalate	400	U
208-96-8-----	Acenaphthylene	400	U
606-20-2-----	2,6-Dinitrotoluene	400	U
99-09-2-----	3-Nitroaniline	820	U
83-32-9-----	Acenaphthene	400	U

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0240330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-19A

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: S1D1528

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/21/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

51-28-5-----	2,4-Dinitrophenol	820	U
100-02-7-----	4-Nitrophenol	820	U
132-64-9-----	Dibenzofuran	400	U
121-14-2-----	2,4-Dinitrotoluene	400	U
84-66-2-----	Diethylphthalate	400	U
7005-72-3-----	4-Chlorophenyl-phenylether	400	U
86-73-7-----	Fluorene	400	U
100-01-6-----	4-Nitroaniline	820	U
534-52-1-----	4,6-Dinitro-2-methylphenol	820	U
86-30-6-----	N-Nitrosodiphenylamine (1)	400	U
101-55-3-----	4-Bromophenyl-phenylether	400	U
118-74-1-----	Hexachlorobenzene	400	U
87-86-5-----	Pentachlorophenol	820	U
85-01-8-----	Phenanthrene	400	U
120-12-7-----	Anthracene	400	U
86-74-8-----	Carbazole	400	U
84-74-2-----	Di-n-butylphthalate	400	U
206-44-0-----	Fluoranthene	42	J
129-00-0-----	Pyrene	110	J
85-68-7-----	Butylbenzylphthalate	400	U
91-94-1-----	3,3'-Dichlorobenzidine	400	U
56-55-3-----	Benzo(a)anthracene	44	J
218-01-9-----	Chrysene	400	U
117-81-7-----	bis(2-Ethylhexyl)phthalate	400	U
117-84-0-----	Di-n-octylphthalate	180	J
205-99-2-----	Benzo(b)fluoranthene	400	U
207-08-9-----	Benzo(k)fluoranthene	400	U
50-32-8-----	Benzo(a)pyrene	400	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	400	U
53-70-3-----	Dibenzo(a,h)anthracene	400	U
191-24-2-----	Benzo(g,h,i)perylene	400	U

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0240330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-19A

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: S1D1528

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/21/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 12

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.34	1200	JB
2.	UNKNOWN	11.22	180	J
3.	UNKNOWN	24.55	700	J
4.	UNKNOWN	24.91	460	J
5.	UNKNOWN	25.12	1000	J
6. 28553-12-0	1,2-BENZENEDICARBOXYLIC ACID	25.21	450	NJ
7.	UNKNOWN	25.34	1200	J
8.	UNKNOWN	25.41	520	J
9.	UNKNOWN	25.54	1000	J
10.	UNKNOWN	25.64	490	J
11.	UNKNOWN	25.77	710	J
12.	UNKNOWN	25.99	520	J
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## INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0240330

Lab Name: MITKEM CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_

SDG No.: A1489B\_

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-19A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 81.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.17	U		CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation**

Date: 08-Nov-02

CLIENT: GEI Consultants, Inc.

Project: Keyspan

Client Sample ID: SED0240330

Collection Date: 10/09/02 16:10

Lab ID: A1489-19

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	5900		240	mg/Kg CaCO3	1	10/24/02 15:38
<b>SOIL AND WASTE PH</b>						
pH	7.8		1.0	pH Units	1	10/21/02 0:00

Qualifiers: ND - Not Detected at the Reporting Limit  
I - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0250003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-16C

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: V1F0319

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 21

Date Analyzed: 10/12/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/KG	
74-87-3	-----Chloromethane	6	U	
75-01-4	-----Vinyl Chloride	6	U	
74-83-9	-----Bromomethane	6	U	
75-00-3	-----Chloroethane	6	U	
75-35-4	-----1,1-Dichloroethene	6	U	
67-64-1	-----Acetone	5	J	
75-15-0	-----Carbon Disulfide	6	U	
75-09-2	-----Methylene Chloride	3	JB	
156-60-5	-----trans-1,2-Dichloroethene	6	U	
75-34-3	-----1,1-Dichloroethane	6	U	
78-93-3	-----2-Butanone	6	U	
156-59-2	-----cis-1,2-Dichloroethene	6	U	
67-66-3	-----Chloroform	6	U	
71-55-6	-----1,1,1-Trichloroethane	6	U	
56-23-5	-----Carbon Tetrachloride	6	U	
107-06-2	-----1,2-Dichloroethane	6	U	
71-43-2	-----Benzene	6	U	
79-01-6	-----Trichloroethene	6	U	
78-87-5	-----1,2-Dichloropropane	6	U	
75-27-4	-----Bromodichloromethane	6	U	
10061-01-5	-----cis-1,3-Dichloropropene	6	U	
108-10-1	-----4-Methyl-2-pentanone	6	U	J
108-88-3	-----Toluene	6	U	
10061-02-6	-----trans-1,3-Dichloropropene	6	U	
79-00-5	-----1,1,2-Trichloroethane	6	U	
127-18-4	-----Tetrachloroethene	6	U	
591-78-6	-----2-Hexanone	6	U	
124-48-1	-----Dibromochloromethane	6	U	
108-90-7	-----Chlorobenzene	6	U	
100-41-4	-----Ethylbenzene	6	U	
1330-20-7	-----Xylene (Total)	6	U	
100-42-5	-----Styrene	6	U	
75-25-2	-----Bromoform	6	U	
79-34-5	-----1,1,2,2-Tetrachloroethane	6	U	

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0250003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-16C

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: V1F0319

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 21

Date Analyzed: 10/12/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0250003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-16A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9963

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 21 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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108-95-2-----	Phenol	410	U
111-44-4-----	bis(2-Chloroethyl) Ether	410	U
95-57-8-----	2-Chlorophenol	410	U
541-73-1-----	1,3-Dichlorobenzene	410	U
106-46-7-----	1,4-Dichlorobenzene	410	U
95-50-1-----	1,2-Dichlorobenzene	410	U
95-48-7-----	2-Methylphenol	410	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	410	U
106-44-5-----	4-Methylphenol	410	U
621-64-7-----	N-Nitroso-di-n-propylamine	410	U
67-72-1-----	Hexachloroethane	410	U
98-95-3-----	Nitrobenzene	410	U
78-59-1-----	Isophorone	410	U
88-75-5-----	2-Nitrophenol	410	U
105-67-9-----	2,4-Dimethylphenol	410	U
120-83-2-----	2,4-Dichlorophenol	410	U
120-82-1-----	1,2,4-Trichlorobenzene	410	U
91-20-3-----	Naphthalene	410	U
106-47-8-----	4-Chloroaniline	410	U
111-91-1-----	bis(2-Chloroethoxy)methane	410	U
87-68-3-----	Hexachlorobutadiene	410	U
59-50-7-----	4-Chloro-3-Methylphenol	410	U
91-57-6-----	2-Methylnaphthalene	410	U
77-47-4-----	Hexachlorocyclopentadiene	410	U
88-06-2-----	2,4,6-Trichlorophenol	410	U
95-95-4-----	2,4,5-Trichlorophenol	830	U
91-58-7-----	2-Chloronaphthalene	410	U
88-74-4-----	2-Nitroaniline	830	U
131-11-3-----	Dimethylphthalate	410	U
208-96-8-----	Acenaphthylene	110	J
606-20-2-----	2,6-Dinitrotoluene	410	U
99-09-2-----	3-Nitroaniline	830	U
83-32-9-----	Acenaphthene	410	U

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0250003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-16A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9963

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 21 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	Q
51-28-5-----	2,4-Dinitrophenol	830 U
100-02-7-----	4-Nitrophenol	830 UJ
132-64-9-----	Dibenzofuran	410 U
121-14-2-----	2,4-Dinitrotoluene	410 U
84-66-2-----	Diethylphthalate	410 U
7005-72-3-----	4-Chlorophenyl-phenylether	410 U
86-73-7-----	Fluorene	410 U
100-01-6-----	4-Nitroaniline	830 UJ
534-52-1-----	4,6-Dinitro-2-methylphenol	830 U
86-30-6-----	N-Nitrosodiphenylamine (1)	410 U
101-55-3-----	4-Bromophenyl-phenylether	410 U
118-74-1-----	Hexachlorobenzene	410 U
87-86-5-----	Pentachlorophenol	830 U
85-01-8-----	Phenanthrene	210 J
120-12-7-----	Anthracene	120 J
86-74-8-----	Carbazole	410 UJ
84-74-2-----	Di-n-butylphthalate	410 U
206-44-0-----	Fluoranthene	410
129-00-0-----	Pyrene	820
85-68-7-----	Butylbenzylphthalate	410 U
91-94-1-----	3,3'-Dichlorobenzidine	410 U
56-55-3-----	Benzo(a)anthracene	340 J
218-01-9-----	Chrysene	330 J
117-81-7-----	bis(2-Ethylhexyl)phthalate	64 J
117-84-0-----	Di-n-octylphthalate	410 U
205-99-2-----	Benzo(b)fluoranthene	210 J
207-08-9-----	Benzo(k)fluoranthene	70 J
50-32-8-----	Benzo(a)pyrene	270 J
193-39-5-----	Indeno(1,2,3-cd)pyrene	96 J
53-70-3-----	Dibenzo(a,h)anthracene	410 U
191-24-2-----	Benzo(g,h,i)perylene	120 J

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0250003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-16A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9963

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 21 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 17

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.61	970	J
2. 872-05-9	1-DECENE	11.67	1800	NJ
3. 2245-38-7	NAPHTHALENE, 1,6,7-TRIMETHYL	12.26	240	NJ
4.	UNKNOWN	13.82	510	J
5.	UNKNOWN	15.94	300	J
6. 2531-84-2	PHENANTHRENE, 2-METHYL-	16.00	600	NJ
7. 57-10-3	HEXADECANOIC ACID	16.18	320	NJ
8.	UNKNOWN PAH	17.33	250	J
9. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYL)	17.88	1000	NJ
10. 243-17-4	11H-BENZO [B] FLUORENE	18.27	170	NJ
11.	UNKNOWN	19.20	220	J
12.	UNKNOWN	20.48	210	J
13. 3878-45-3	PHOSPHINE SULFIDE, TRIPHENYL	20.96	200	NJ
14.	UNKNOWN	21.90	360	J
15.	UNKNOWN	23.27	270	J
16.	UNKNOWN	23.96	230	J
17.	UNKNOWN	29.08	3200	J
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0250003

Lab Name: MITKEM\_CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: A1489A

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-16A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 79.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.18	U	J *N	CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation****Date:** 08-Nov-02

**CLIENT:** GEI Consultants, Inc.  
**Client Sample ID:** SED0250003  
**Lab ID:** A1489-16

**Project:** Keyspan  
**Collection Date:** 10/09/02 15:40

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO <sub>3</sub> )	94000		230	mg/Kg CaCO <sub>3</sub>	1	10/24/02 15:38
<b>SOIL AND WASTE PH</b>						
pH	7.9		1.0	pH Units	1	10/21/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0250330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-17C

Sample wt/vol: 5.3 (g/mL) G

Lab File ID: V1F0409

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 14

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
74-87-3	-----Chloromethane	5	U	J
75-01-4	-----Vinyl Chloride	5	U	
74-83-9	-----Bromomethane	5	U	J
75-00-3	-----Chloroethane	5	U	J
75-35-4	-----1,1-Dichloroethene	5	U	
67-64-1	-----Acetone	9		
75-15-0	-----Carbon Disulfide	5	U	
75-09-2	-----Methylene Chloride	4	JB	
156-60-5	-----trans-1,2-Dichloroethene	5	U	
75-34-3	-----1,1-Dichloroethane	5	U	
78-93-3	-----2-Butanone	5	U	
156-59-2	-----cis-1,2-Dichloroethene	5	U	
67-66-3	-----Chloroform	5	U	
71-55-6	-----1,1,1-Trichloroethane	5	U	
56-23-5	-----Carbon Tetrachloride	5	U	
107-06-2	-----1,2-Dichloroethane	5	U	
71-43-2	-----Benzene	5	U	
79-01-6	-----Trichloroethene	5	U	
78-87-5	-----1,2-Dichloropropane	5	U	
75-27-4	-----Bromodichloromethane	5	U	
10061-01-5	-----cis-1,3-Dichloropropene	5	U	
108-10-1	-----4-Methyl-2-pentanone	5	U	
108-88-3	-----Toluene	5	U	
10061-02-6	-----trans-1,3-Dichloropropene	5	U	
79-00-5	-----1,1,2-Trichloroethane	5	U	
127-18-4	-----Tetrachloroethene	5	U	
591-78-6	-----2-Hexanone	5	U	
124-48-1	-----Dibromochloromethane	5	U	
108-90-7	-----Chlorobenzene	5	U	
100-41-4	-----Ethylbenzene	5	U	
1330-20-7	-----Xylene (Total)	5	U	
100-42-5	-----Styrene	5	U	
75-25-2	-----Bromoform	5	U	
79-34-5	-----1,1,2,2-Tetrachloroethane	5	U	

FORM I VOA

OLM03.0

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0250330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-17C

Sample wt/vol: 5.3 (g/mL) G

Lab File ID: V1F0409

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 14

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0250330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-17A

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: S1D1529

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 14 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/22/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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108-95-2-----	Phenol	380	U
111-44-4-----	bis(2-Chloroethyl) Ether	380	UJ
95-57-8-----	2-Chlorophenol	380	U
541-73-1-----	1,3-Dichlorobenzene	380	UJ
106-46-7-----	1,4-Dichlorobenzene	380	UJ
95-50-1-----	1,2-Dichlorobenzene	380	UJ
95-48-7-----	2-Methylphenol	380	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	380	UJ
106-44-5-----	4-Methylphenol	380	U
621-64-7-----	N-Nitroso-di-n-propylamine	380	UJ
67-72-1-----	Hexachloroethane	380	UJ
98-95-3-----	Nitrobenzene	380	UJ
78-59-1-----	Isophorone	380	UJ
88-75-5-----	2-Nitrophenol	380	U
105-67-9-----	2,4-Dimethylphenol	380	U
120-83-2-----	2,4-Dichlorophenol	380	U
120-82-1-----	1,2,4-Trichlorobenzene	380	UJ
91-20-3-----	Naphthalene	380	UJ
106-47-8-----	4-Chloroaniline	380	UJ
111-91-1-----	bis(2-Chloroethoxy) methane	380	UJ
87-68-3-----	Hexachlorobutadiene	380	UJ
59-50-7-----	4-Chloro-3-Methylphenol	380	U
91-57-6-----	2-Methylnaphthalene	380	UJ
77-47-4-----	Hexachlorocyclopentadiene	380	UJ
88-06-2-----	2,4,6-Trichlorophenol	380	U
95-95-4-----	2,4,5-Trichlorophenol	770	U
91-58-7-----	2-Chloronaphthalene	380	UJ
88-74-4-----	2-Nitroaniline	770	UJ
131-11-3-----	Dimethylphthalate	380	UJ
208-96-8-----	Acenaphthylene	380	UJ
606-20-2-----	2,6-Dinitrotoluene	380	UJ
99-09-2-----	3-Nitroaniline	770	UJ
83-32-9-----	Acenaphthene	380	U



1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0250330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-17A

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: S1D1529

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 14 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/22/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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51-28-5-----	2,4-Dinitrophenol	770	U
100-02-7-----	4-Nitrophenol	770	U
132-64-9-----	Dibenzofuran	380	U J
121-14-2-----	2,4-Dinitrotoluene	380	U J
84-66-2-----	Diethylphthalate	380	U J
7005-72-3-----	4-Chlorophenyl-phenylether	380	U J
86-73-7-----	Fluorene	380	U J
100-01-6-----	4-Nitroaniline	770	U J
534-52-1-----	4,6-Dinitro-2-methylphenol	770	U
86-30-6-----	N-Nitrosodiphenylamine (1)	380	U J
101-55-3-----	4-Bromophenyl-phenylether	380	U J
118-74-1-----	Hexachlorobenzene	380	U J
87-86-5-----	Pentachlorophenol	770	U
85-01-8-----	Phenanthrene	66	J
120-12-7-----	Anthracene	380	U J
86-74-8-----	Carbazole	380	U J
84-74-2-----	Di-n-butylphthalate	380	U J
206-44-0-----	Fluoranthene	160	J
129-00-0-----	Pyrene	370	J
85-68-7-----	Butylbenzylphthalate	380	U J
91-94-1-----	3,3'-Dichlorobenzidine	380	U J
56-55-3-----	Benzo(a)anthracene	140	J
218-01-9-----	Chrysene	130	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	380	U J
117-84-0-----	Di-n-octylphthalate	380	U J
205-99-2-----	Benzo(b)fluoranthene	76	J
207-08-9-----	Benzo(k)fluoranthene	380	U J
50-32-8-----	Benzo(a)pyrene	100	J
193-39-5-----	Indeno(1,2,3-cd)pyrene	380	U J
53-70-3-----	Dibenzo(a,h)anthracene	380	U J
191-24-2-----	Benzo(g,h,i)perylene	380	U J

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0250330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-17A

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: S1D1529

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 14 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/22/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 4

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.33	960	JB
2.	UNKNOWN	19.22	160	J
3. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	21.00	160	NJ
4.	UNKNOWN	24.66	170	J
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0250330RE

Lab Name: MITKEM CORPORATION Contract:  
Lab Code: MITKEM Case No.: SAS No.: SDG No.: A1489  
Matrix: (soil/water) SOIL Lab Sample ID: A1489-17ARE  
Sample wt/vol: 30.6 (g/mL) G Lab File ID: S2D0082  
Level: (low/med) LOW Date Received: 10/11/02  
% Moisture: 14 decanted: (Y/N) N Date Extracted: 10/28/02  
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/01/02  
Injection Volume: 1.0 (uL) Dilution Factor: 1.0  
GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380	UJ
111-44-4	bis(2-Chloroethyl) Ether	380	UJ
95-57-8	2-Chlorophenol	380	UJ
541-73-1	1,3-Dichlorobenzene	380	UJ
106-46-7	1,4-Dichlorobenzene	380	UJ
95-50-1	1,2-Dichlorobenzene	380	UJ
95-48-7	2-Methylphenol	380	UJ
108-60-1	2,2'-oxybis(1-Chloropropane)	380	UJ
106-44-5	4-Methylphenol	380	UJ
621-64-7	N-Nitroso-di-n-propylamine	380	UJ
67-72-1	Hexachloroethane	380	UJ
98-95-3	Nitrobenzene	380	UJ
78-59-1	Isophorone	380	UJ
88-75-5	2-Nitrophenol	380	UJ
105-67-9	2,4-Dimethylphenol	380	UJ
120-83-2	2,4-Dichlorophenol	380	UJ
120-82-1	1,2,4-Trichlorobenzene	380	UJ
91-20-3	Naphthalene	380	UJ
106-47-8	4-Chloroaniline	380	UJ
111-91-1	bis(2-Chloroethoxy) methane	380	UJ
87-68-3	Hexachlorobutadiene	380	UJ
59-50-7	4-Chloro-3-Methylphenol	380	UJ
91-57-6	2-Methylnaphthalene	380	UJ
77-47-4	Hexachlorocyclopentadiene	380	UJ
88-06-2	2,4,6-Trichlorophenol	380	UJ
95-95-4	2,4,5-Trichlorophenol	760	UJ
91-58-7	2-Chloronaphthalene	380	UJ
88-74-4	2-Nitroaniline	760	UJ
131-11-3	Dimethylphthalate	380	UJ
208-96-8	Acenaphthylene	45	J
606-20-2	2,6-Dinitrotoluene	380	UJ
99-09-2	3-Nitroaniline	760	UJ
83-32-9	Acenaphthene	380	UJ

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0250330RE

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-17ARE

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S2D0082

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 14 decanted: (Y/N) N

Date Extracted: 10/28/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/01/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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51-28-5-----	2,4-Dinitrophenol	760	U J
100-02-7-----	4-Nitrophenol	760	U J
132-64-9-----	Dibenzofuran	380	U J
121-14-2-----	2,4-Dinitrotoluene	380	U J
84-66-2-----	Diethylphthalate	380	U J
7005-72-3-----	4-Chlorophenyl-phenylether	380	U J
86-73-7-----	Fluorene	380	U J
100-01-6-----	4-Nitroaniline	760	U J
534-52-1-----	4,6-Dinitro-2-methylphenol	760	U J
86-30-6-----	N-Nitrosodiphenylamine (1)	380	U J
101-55-3-----	4-Bromophenyl-phenylether	380	U J
118-74-1-----	Hexachlorobenzene	380	U J
87-86-5-----	Pentachlorophenol	760	U J
85-01-8-----	Phenanthrene	56	J
120-12-7-----	Anthracene	380	U J
86-74-8-----	Carbazole	380	U J
84-74-2-----	Di-n-butylphthalate	380	U J
206-44-0-----	Fluoranthene	110	J
129-00-0-----	Pyrene	340	J
85-68-7-----	Butylbenzylphthalate	380	U J
91-94-1-----	3,3'-Dichlorobenzidine	380	U J
56-55-3-----	Benzo(a)anthracene	100	J
218-01-9-----	Chrysene	110	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	380	U J
117-84-0-----	Di-n-octylphthalate	380	U J
205-99-2-----	Benzo(b)fluoranthene	100	J
207-08-9-----	Benzo(k)fluoranthene	40	J
50-32-8-----	Benzo(a)pyrene	110	J
193-39-5-----	Indeno(1,2,3-cd)pyrene	380	U J
53-70-3-----	Dibenzo(a,h)anthracene	380	U J
191-24-2-----	Benzo(g,h,i)perylene	380	U J

(1) - Cannot be separated from Diphenylamine

12/10/02

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0250330RE

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-17ARE

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S2D0082

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 14 decanted: (Y/N) N

Date Extracted: 10/28/02

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 11/01/02

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N/ pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 7

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.40	1100	JB
2.	UNKNOWN	10.23	210	JB
3. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	19.91	5700	NJ
4. 123-95-5	OCTADECANOIC ACID, BUTYL EST	21.31	300	NJ
5.	UNKNOWN	22.47	160	J
6. 301-02-0	9-OCTADECENAMIDE, (Z)-	23.89	280	NJ
7.	UNKNOWN	26.34	310	J
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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0250330

Lab Name: MITKEM\_CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: A1489A\_

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-17A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 86.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.20	B	*N	CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

**Mitkem Corporation**

Date: 08-Nov-02

CLIENT: GEI Consultants, Inc.

Project: Keyspan

Client Sample ID: SED0250330

Collection Date: 10/09/02 15:45

Lab ID: A1489-17

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	15000	SM2340_S	220	mg/Kg CaCO3	1	10/24/02 15:38
<b>SOIL AND WASTE PH</b>						
pH	7.8	SW9045C_S	1.0	pH Units	1	10/21/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED026003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-03C

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: V1F0396

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 28

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/KG	
74-87-3	-----Chloromethane	7	U	U
75-01-4	-----Vinyl Chloride	7	U	U
74-83-9	-----Bromomethane	7	U	U
75-00-3	-----Chloroethane	7	U	U
75-35-4	-----1,1-Dichloroethene	7	U	U
67-64-1	-----Acetone	44	U	U
75-15-0	-----Carbon Disulfide	7	U	U
75-09-2	-----Methylene Chloride	3	JB	U
156-60-5	-----trans-1,2-Dichloroethene	7	U	U
75-34-3	-----1,1-Dichloroethane	7	U	U
78-93-3	-----2-Butanone	7	U	U
156-59-2	-----cis-1,2-Dichloroethene	7	U	U
67-66-3	-----Chloroform	7	U	U
71-55-6	-----1,1,1-Trichloroethane	7	U	U
56-23-5	-----Carbon Tetrachloride	7	U	U
107-06-2	-----1,2-Dichloroethane	7	U	U
71-43-2	-----Benzene	7	U	U
79-01-6	-----Trichloroethene	7	U	U
78-87-5	-----1,2-Dichloropropane	7	U	U
75-27-4	-----Bromodichloromethane	7	U	U
10061-01-5	-----cis-1,3-Dichloropropene	7	U	U
108-10-1	-----4-Methyl-2-pentanone	7	U	U
108-88-3	-----Toluene	7	U	U
10061-02-6	-----trans-1,3-Dichloropropene	7	U	U
79-00-5	-----1,1,2-Trichloroethane	7	U	U
127-18-4	-----Tetrachloroethene	7	U	U
591-78-6	-----2-Hexanone	7	U	U
124-48-1	-----Dibromochloromethane	7	U	U
108-90-7	-----Chlorobenzene	7	U	U
100-41-4	-----Ethylbenzene	11	U	U
1330-20-7	-----Xylene (Total)	7	U	U
100-42-5	-----Styrene	7	U	U
75-25-2	-----Bromoform	7	U	U
79-34-5	-----1,1,2,2-Tetrachloroethane	7	U	U



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED026003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-03C

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: V1F0396

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 28

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 11

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.75	8	J
2.	UNKNOWN	3.97	8	J
3.	UNKNOWN	4.48	8	J
4. 98-82-8	BENZENE, (1-METHYLETHYL) -	11.08	38	NJ
5. 95-13-6	INDENE	13.24	9	NJ
6. 27133-93-3	2,3-DIHYDRO-1-METHYLINDENE	13.65	54	NJ
7. 65051-83-4	BENZENE, (1-METHYL-2-CYCLOPR	14.59	17	NJ
8. 65051-83-4	BENZENE, (1-METHYL-2-CYCLOPR	14.70	19	NJ
9. 6682-71-9	1H-INDENE, 2,3-DIHYDRO-4,7-D	15.00	11	NJ
10.	UNKNOWN	15.96	13	J
11. 90-12-0	NAPHTHALENE, 1-METHYL-	16.58	14	NJ
12.				
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED026003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-03A

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: S3B9958

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 28 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

108-95-2-----	Phenol	2300	U
111-44-4-----	bis(2-Chloroethyl) Ether	2300	U
95-57-8-----	2-Chlorophenol	2300	U
541-73-1-----	1,3-Dichlorobenzene	2300	U
106-46-7-----	1,4-Dichlorobenzene	2300	U
95-50-1-----	1,2-Dichlorobenzene	2300	U
95-48-7-----	2-Methylphenol	2300	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	2300	U
106-44-5-----	4-Methylphenol	2300	U
621-64-7-----	N-Nitroso-di-n-propylamine	2300	U
67-72-1-----	Hexachloroethane	2300	U
98-95-3-----	Nitrobenzene	2300	U
78-59-1-----	Isophorone	2300	U
88-75-5-----	2-Nitrophenol	2300	U
105-67-9-----	2,4-Dimethylphenol	2300	U
120-83-2-----	2,4-Dichlorophenol	2300	U
120-82-1-----	1,2,4-Trichlorobenzene	2300	U
91-20-3-----	Naphthalene	2300	U
106-47-8-----	4-Chloroaniline	2300	U J
111-91-1-----	bis(2-Chloroethoxy) methane	2300	U
87-68-3-----	Hexachlorobutadiene	2300	U
59-50-7-----	4-Chloro-3-Methylphenol	2300	U
91-57-6-----	2-Methylnaphthalene	2300	U
77-47-4-----	Hexachlorocyclopentadiene	2300	U
88-06-2-----	2,4,6-Trichlorophenol	2300	U
95-95-4-----	2,4,5-Trichlorophenol	4600	U
91-58-7-----	2-Chloronaphthalene	2300	U
88-74-4-----	2-Nitroaniline	4600	U
131-11-3-----	Dimethylphthalate	2300	U
208-96-8-----	Acenaphthylene	630	J
606-20-2-----	2,6-Dinitrotoluene	2300	U
99-09-2-----	3-Nitroaniline	4600	U J
83-32-9-----	Acenaphthene	1600	J

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED026003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-03A

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: S3B9958

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 28 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

51-28-5-----	2,4-Dinitrophenol	4600	U
100-02-7-----	4-Nitrophenol	4600	U J
132-64-9-----	Dibenzofuran	2300	U
121-14-2-----	2,4-Dinitrotoluene	2300	U
84-66-2-----	Diethylphthalate	2300	U
7005-72-3-----	4-Chlorophenyl-phenylether	2300	U
86-73-7-----	Fluorene	2300	U
100-01-6-----	4-Nitroaniline	4600	U J
534-52-1-----	4,6-Dinitro-2-methylphenol	4600	U
86-30-6-----	N-Nitrosodiphenylamine (1)	2300	U
101-55-3-----	4-Bromophenyl-phenylether	2300	U
118-74-1-----	Hexachlorobenzene	2300	U
87-86-5-----	Pentachlorophenol	4600	U
85-01-8-----	Phenanthrene	1200	J
120-12-7-----	Anthracene	600	J
86-74-8-----	Carbazole	2300	U J
84-74-2-----	Di-n-butylphthalate	2300	U
206-44-0-----	Fluoranthene	2300	
129-00-0-----	Pyrene	4200	
85-68-7-----	Butylbenzylphthalate	2300	U
91-94-1-----	3,3'-Dichlorobenzidine	2300	U
56-55-3-----	Benzo(a)anthracene	1800	J
218-01-9-----	Chrysene	1800	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	420	J
117-84-0-----	Di-n-octylphthalate	330	J
205-99-2-----	Benzo(b)fluoranthene	1200	J
207-08-9-----	Benzo(k)fluoranthene	440	J
50-32-8-----	Benzo(a)pyrene	1100	J
193-39-5-----	Indeno(1,2,3-cd)pyrene	610	J
53-70-3-----	Dibenzo(a,h)anthracene	2300	U
191-24-2-----	Benzo(g,h,i)perylene	630	J

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

BPA SAMPLE NO.

SED026003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-03A

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: S3B9958

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 28 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 8

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	12.25	1300	J
2. 779-02-2	ANTHRACENE, 9-METHYL-	15.74	950	NJ
3.	UNKNOWN	15.94	1400	J
4. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	17.87	7900	NT
5.	UNKNOWN	21.76	1100	J
6.	UNKNOWN	22.10	2100	J
7.	UNKNOWN	22.26	1900	J
8. 192-97-2	BENZO[E] PYRENE	22.42	2300	NJ
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED026003

Lab Name: MITKEM CORPORATION \_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_

SDG No.: A1489A

Matrix (soil/water): SOIL \_\_\_\_\_ Lab Sample ID: A1489-03A \_\_\_\_\_

Level (low/med): MED \_\_\_\_\_ Date Received: 10/11/02 \_\_\_\_\_

% Solids: 72.0 \_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.21	U	*N	CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation****Date:** 08-Nov-02**CLIENT:** GEI Consultants, Inc.**Project:** Keyspan**Client Sample ID:** SED026003**Collection Date:** 10/09/02 11:30**Lab ID:** A1489-03

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	140000		240	mg/Kg CaCO3	1	10/24/02 15:38
<b>SOIL AND WASTE PH</b>						
pH	8.3		1.0	pH Units	1	10/16/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0260319

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-04C

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: V1F0470

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 23

Date Analyzed: 10/16/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/KG	
74-87-3	-----Chloromethane	6	U	
75-01-4	-----Vinyl Chloride	6	U	
74-83-9	-----Bromomethane	6	U	
75-00-3	-----Chloroethane	6	U	
75-35-4	-----1,1-Dichloroethene	6	U	
67-64-1	-----Acetone	15		
75-15-0	-----Carbon Disulfide	2	J	
75-09-2	-----Methylene Chloride	4	J	
156-60-5	-----trans-1,2-Dichloroethene	6	U	
75-34-3	-----1,1-Dichloroethane	6	U	
78-93-3	-----2-Butanone	6	U	
156-59-2	-----cis-1,2-Dichloroethene	6	U	
67-66-3	-----Chloroform	6	U	
71-55-6	-----1,1,1-Trichloroethane	6	U	
56-23-5	-----Carbon Tetrachloride	6	U	
107-06-2	-----1,2-Dichloroethane	6	U	
71-43-2	-----Benzene	2	J	
79-01-6	-----Trichloroethene	6	U	
78-87-5	-----1,2-Dichloropropane	6	U	
75-27-4	-----Bromodichloromethane	6	U	
10061-01-5	-----cis-1,3-Dichloropropene	6	U	
108-10-1	-----4-Methyl-2-pentanone	6	U	
108-88-3	-----Toluene	6	U	
10061-02-6	-----trans-1,3-Dichloropropene	6	U	
79-00-5	-----1,1,2-Trichloroethane	6	U	
127-18-4	-----Tetrachloroethene	6	U	
591-78-6	-----2-Hexanone	6	U	
124-48-1	-----Dibromochloromethane	6	U	
108-90-7	-----Chlorobenzene	6	U	
100-41-4	-----Ethylbenzene	160		
1330-20-7	-----Xylene (Total)	2	J	
100-42-5	-----Styrene	6	U	
75-25-2	-----Bromoform	6	U	
79-34-5	-----1,1,2,2-Tetrachloroethane	6	U	

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0260319

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-04C

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: V1F0470

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 23

Date Analyzed: 10/16/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 30

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 98-82-8	BENZENE, (1-METHYLETHYL) -	11.12	120	NJ
2. 103-65-1	BENZENE, PROPYL-	11.64	36	NJ
3. 611-14-3	BENZENE, 1-ETHYL-2-METHYL-	12.10	42	NJ
4. 526-73-8	BENZENE, 1,2,3-TRIMETHYL-	12.80	8	NJ
5. 496-11-7	INDANE	13.03	37	NJ
6. 673-32-5	BENZENE, 1-PROPYNYL-	13.27	320	NJ
7.	UNKNOWN	13.36	11	J
8. 1195-32-0	BENZENE, 1-METHYL-4-(1-METHY	13.48	8	NJ
9. 27133-93-3	2,3-DIHYDRO-1-METHYLINDENE	13.69	49	NJ
10. 933-98-2	BENZENE, 1-ETHYL-2,3-DIMETHY	14.02	22	NJ
11.	UNKNOWN	14.09	9	J
12. 4706-89-2	BENZENE, 2,4-DIMETHYL-1-(1-M	14.27	10	NJ
13. 65051-83-4	BENZENE, (1-METHYL-2-CYCLOPR	14.61	100	NJ
14. 65051-83-4	BENZENE, (1-METHYL-2-CYCLOPR	14.73	160	NJ
15. 17059-48-2	1H-INDENE, 2,3-DIHYDRO-1,6-D	15.07	10	NJ
16. 270-82-6	BENZO [C] THIOPHENE	15.34	140	NJ
17.	UNKNOWN	15.44	14	J
18.	UNKNOWN	15.68	9	J
19.	UNKNOWN	15.75	12	J
20.	UNKNOWN	15.98	25	J
21. 16587-47-6	BENZO [B] THIOPHENE, 6-METHYL-	16.36	41	NJ
22. 1195-14-8	BENZO [B] THIOPHENE, 2-METHYL-	16.45	17	NJ
23. 1195-14-8	BENZO [B] THIOPHENE, 2-METHYL-	16.62	72	NJ
24.	UNKNOWN	17.41	14	J
25. 575-37-1	NAPHTHALENE, 1,7-DIMETHYL-	17.48	21	NJ
26. 581-40-8	NAPHTHALENE, 2,3-DIMETHYL-	17.63	54	NJ
27. 575-41-7	NAPHTHALENE, 1,3-DIMETHYL-	17.85	32	NJ
28. 571-58-4	NAPHTHALENE, 1,4-DIMETHYL-	18.03	13	NJ
29.	UNKNOWN	18.12	8	J
30. 83-32-9	ACENAPHTHENE	18.34	110	NJ



1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0260319

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-04A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9959

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 23 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

108-95-2-----	Phenol	2100	U
111-44-4-----	bis(2-Chloroethyl) Ether	2100	U
95-57-8-----	2-Chlorophenol	2100	U
541-73-1-----	1,3-Dichlorobenzene	2100	U
106-46-7-----	1,4-Dichlorobenzene	2100	U
95-50-1-----	1,2-Dichlorobenzene	2100	U
95-48-7-----	2-Methylphenol	2100	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	2100	U
106-44-5-----	4-Methylphenol	2100	U
621-64-7-----	N-Nitroso-di-n-propylamine	2100	U
67-72-1-----	Hexachloroethane	2100	U
98-95-3-----	Nitrobenzene	2100	U
78-59-1-----	Isophorone	2100	U
88-75-5-----	2-Nitrophenol	2100	U
105-67-9-----	2,4-Dimethylphenol	2100	U
120-83-2-----	2,4-Dichlorophenol	2100	U
120-82-1-----	1,2,4-Trichlorobenzene	2100	U
91-20-3-----	Naphthalene	1700	J
106-47-8-----	4-Chloroaniline	2100	U J
111-91-1-----	bis(2-Chloroethoxy)methane	2100	U
87-68-3-----	Hexachlorobutadiene	2100	U
59-50-7-----	4-Chloro-3-Methylphenol	2100	U
91-57-6-----	2-Methylnaphthalene	440	J
77-47-4-----	Hexachlorocyclopentadiene	2100	U
88-06-2-----	2,4,6-Trichlorophenol	2100	U
95-95-4-----	2,4,5-Trichlorophenol	4300	U
91-58-7-----	2-Chloronaphthalene	2100	U
88-74-4-----	2-Nitroaniline	4300	U
131-11-3-----	Dimethylphthalate	2100	U
208-96-8-----	Acenaphthylene	3400	
606-20-2-----	2,6-Dinitrotoluene	2100	U
99-09-2-----	3-Nitroaniline	4300	U J
83-32-9-----	Acenaphthene	8800	

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0260319

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-04A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9959

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 23 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

51-28-5-----	2,4-Dinitrophenol	4300	U
100-02-7-----	4-Nitrophenol	4300	U J
132-64-9-----	Dibenzofuran	2100	U
121-14-2-----	2,4-Dinitrotoluene	2100	U
84-66-2-----	Diethylphthalate	2100	U
7005-72-3-----	4-Chlorophenyl-phenylether	2100	U
86-73-7-----	Fluorene	810	J
100-01-6-----	4-Nitroaniline	4300	U J
534-52-1-----	4,6-Dinitro-2-methylphenol	4300	U
86-30-6-----	N-Nitrosodiphenylamine (1)	2100	U
101-55-3-----	4-Bromophenyl-phenylether	2100	U
118-74-1-----	Hexachlorobenzene	2100	U
87-86-5-----	Pentachlorophenol	4300	U
85-01-8-----	Phenanthrene	4100	
120-12-7-----	Anthracene	3100	
86-74-8-----	Carbazole	550	J
84-74-2-----	Di-n-butylphthalate	2100	U
206-44-0-----	Fluoranthene	12000	
129-00-0-----	Pyrene	23000	
85-68-7-----	Butylbenzylphthalate	2100	U
91-94-1-----	3,3'-Dichlorobenzidine	2100	U
56-55-3-----	Benzo(a)anthracene	9200	
218-01-9-----	Chrysene	8900	
117-81-7-----	bis(2-Ethylhexyl)phthalate	2100	U
117-84-0-----	Di-n-octylphthalate	2100	U
205-99-2-----	Benzo(b)fluoranthene	5800	
207-08-9-----	Benzo(k)fluoranthene	2100	J
50-32-8-----	Benzo(a)pyrene	7300	
193-39-5-----	Indeno(1,2,3-cd)pyrene	2700	
53-70-3-----	Dibenzo(a,h)anthracene	650	J
191-24-2-----	Benzo(g,h,i)perylene	3000	

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0260319

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-04A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9959

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 23 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 19

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 90-12-0	NAPHTHALENE, 1-METHYL-	9.93	6000	NJ
2. 613-12-7	ANTHRACENE, 2-METHYL-	15.75	6100	NJ
3.	UNKNOWN	15.95	12000	J
4. 613-12-7	ANTHRACENE, 2-METHYL-	16.00	6300	NJ
5. 35465-71-5	2-PHENYLNAPHTHALENE	16.38	5000	NJ
6. 1576-67-6	PHENANTHRENE, 3,6-DIMETHYL-	16.88	7500	NJ
7.	UNKNOWN	16.93	6100	J
8.	UNKNOWN PAH	17.32	5500	J
9. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYL)	17.88	2400	NJ
10.	UNKNOWN	18.24	1500	J
11. 243-17-4	11H-BENZO[B] FLUORENE	18.27	2400	NJ
12. 243-17-4	11H-BENZO[B] FLUORENE	18.41	2100	NJ
13. 2381-21-7	PYRENE, 1-METHYL-	18.46	1900	NJ
14. 3442-78-2	PYRENE, 2-METHYL-	18.64	2100	NJ
15. 2381-21-7	PYRENE, 1-METHYL-	18.69	1500	NJ
16.	UNKNOWN	19.56	1400	J
17. 2381-31-9	BENZ[A] ANTHRACENE, 8-METHYL-	20.80	1900	NJ
18. 1705-85-7	CHRYSENE, 6-METHYL-	21.04	1500	NJ
19. 192-97-2	BENZO[E] PYRENE	22.44	4300	NJ
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0260319

Lab Name: MITKEM\_CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: A1489A

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-04A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 77.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.19	U	I*N	CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

**Mitkem Corporation****Date:** 08-Nov-02**CLIENT:** GEI Consultants, Inc.**Project:** Keyspan**Client Sample ID:** SED0260319**Collection Date:** 10/09/02 11:35**Lab ID:** A1489-04

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	17000		230	mg/Kg CaCO3	1	10/24/02 15:38
<b>SOIL AND WASTE PH</b>						
pH	8.2		1.0	pH Units	1	10/16/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

**2165**

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0261924

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-05C

Sample wt/vol: 0.6 (g/mL) G

Lab File ID: V1F0465

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 20

Date Analyzed: 10/16/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

74-87-3-----	Chloromethane	52	U
75-01-4-----	Vinyl Chloride	52	U
74-83-9-----	Bromomethane	52	U
75-00-3-----	Chloroethane	52	U
75-35-4-----	1,1-Dichloroethene	52	U
67-64-1-----	Acetone	52	U
75-15-0-----	Carbon Disulfide	52	U
75-09-2-----	Methylene Chloride	36	J
156-60-5-----	trans-1,2-Dichloroethene	52	U
75-34-3-----	1,1-Dichloroethane	52	U
78-93-3-----	2-Butanone	52	U
156-59-2-----	cis-1,2-Dichloroethene	52	U
67-66-3-----	Chloroform	52	U
71-55-6-----	1,1,1-Trichloroethane	52	U
56-23-5-----	Carbon Tetrachloride	52	U
107-06-2-----	1,2-Dichloroethane	52	U
71-43-2-----	Benzene	52	U
79-01-6-----	Trichloroethene	52	U
78-87-5-----	1,2-Dichloropropane	52	U
75-27-4-----	Bromodichloromethane	52	U
10061-01-5-----	cis-1,3-Dichloropropene	52	U
108-10-1-----	4-Methyl-2-pentanone	52	U
108-88-3-----	Toluene	52	U
10061-02-6-----	trans-1,3-Dichloropropene	52	U
79-00-5-----	1,1,2-Trichloroethane	52	U
127-18-4-----	Tetrachloroethene	52	U
591-78-6-----	2-Hexanone	52	U
124-48-1-----	Dibromochloromethane	52	U
108-90-7-----	Chlorobenzene	52	U
100-41-4-----	Ethylbenzene	1200	
1330-20-7-----	Xylene (Total)	73	
100-42-5-----	Styrene	52	U
75-25-2-----	Bromoform	52	U
79-34-5-----	1,1,2,2-Tetrachloroethane	52	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0261924

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-05C

Sample wt/vol: 0.6 (g/mL) G

Lab File ID: V1F0465

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 20

Date Analyzed: 10/16/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (mL)

Soil Aliquot Volume: (uL)

Number TICs found: 28

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 98-82-8	BENZENE, (1-METHYLETHYL) -	11.11	210	NJ
2.	UNKNOWN	11.63	110	J
3. 611-14-3	BENZENE, 1-ETHYL-2-METHYL-	12.09	290	NJ
4. 95-36-3	1,2,4-TRIMETHYLBENZENE	12.79	410	NJ
5. 496-11-7	INDANE	13.02	430	NJ
6. 95-13-6	INDENE	13.26	2600	NJ
7. 1758-88-9	BENZENE, 2-ETHYL-1,4-DIMETHY	13.46	110	NJ
8. 27133-93-3	2,3-DIHYDRO-1-METHYLINDENE	13.68	140	NJ
9. 527-53-7	BENZENE, 1,2,3,5-TETRAMETHYL	14.01	180	NJ
10. 488-23-3	BENZENE, 1,2,3,4-TETRAMETHYL	14.07	190	NJ
11. 527-53-7	BENZENE, 1,2,3,5-TETRAMETHYL	14.53	240	NJ
12. 65051-83-4	BENZENE, (1-METHYL-2-CYCLOPR	14.60	400	NJ
13. 65051-83-4	BENZENE, (1-METHYL-2-CYCLOPR	14.72	1400	NJ
14. 4489-84-3	BENZENE, (3-METHYL-2-BUTENYL	14.90	99	NJ
15. 95-15-8	BENZO [B] THIOPHENE	15.33	730	NJ
16.	UNKNOWN	15.43	260	J
17. 2717-44-4	NAPHTHALENE, 1,2-DIHYDRO-3-M	15.67	290	NJ
18. 18636-55-0	1H-INDENE, 1,1-DIMETHYL-	15.84	260	NJ
19.	UNKNOWN	15.97	200	J
20.	UNKNOWN	16.04	100	J
21. 1455-18-1	3-METHYLBENZOTHIOPHENE	16.35	310	NJ
22. 1195-14-8	BENZO [B] THIOPHENE, 2-METHYL-	16.44	150	NJ
23. 1127-76-0	NAPHTHALENE, 1-ETHYL-	17.40	180	NJ
24. 582-16-1	NAPHTHALENE, 2,7-DIMETHYL-	17.47	610	NJ
25. 571-58-4	NAPHTHALENE, 1,4-DIMETHYL-	17.62	1200	NJ
26. 573-98-8	NAPHTHALENE, 1,2-DIMETHYL-	17.86	470	NJ
27. 575-41-7	NAPHTHALENE, 1,3-DIMETHYL-	18.02	190	NJ
28.	UNKNOWN	18.34	1800	J
29.				
30.				

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0261924

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-05A

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: S3C0107

Level: (low/med) LOW

Date Received: 10/30/02

% Moisture: 20

decanted: (Y/N) N

Date Extracted: 10/31/02

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 11/05/02

Injection Volume: 1.0 (uL)

Dilution Factor: 3.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

51-28-5-----	2,4-Dinitrophenol	12000	U
100-02-7-----	4-Nitrophenol	12000	U
132-64-9-----	Dibenzofuran	980	J
121-14-2-----	2,4-Dinitrotoluene	6100	U
84-66-2-----	Diethylphthalate	6100	U
7005-72-3-----	4-Chlorophenyl-phenylether	6100	U
86-73-7-----	Fluorene	2700	J
100-01-6-----	4-Nitroaniline	12000	U J
534-52-1-----	4,6-Dinitro-2-methylphenol	12000	U
86-30-6-----	N-Nitrosodiphenylamine (1)	6100	U
101-55-3-----	4-Bromophenyl-phenylether	6100	U
118-74-1-----	Hexachlorobenzene	6100	U
87-86-5-----	Pentachlorophenol	12000	U
85-01-8-----	Phenanthrene	14000	
120-12-7-----	Anthracene	13000	
86-74-8-----	Carbazole	2600	J
84-74-2-----	Di-n-butylphthalate	6100	U
206-44-0-----	Fluoranthene	36000	
129-00-0-----	Pyrene	54000	
85-68-7-----	Butylbenzylphthalate	6100	U
91-94-1-----	3,3'-Dichlorobenzidine	6100	U J
56-55-3-----	Benzo (a) anthracene	29000	
218-01-9-----	Chrysene	30000	
117-81-7-----	bis (2-Ethylhexyl) phthalate	6100	U
117-84-0-----	Di-n-octylphthalate	6100	U
205-99-2-----	Benzo (b) fluoranthene	18000	
207-08-9-----	Benzo (k) fluoranthene	8500	
50-32-8-----	Benzo (a) pyrene	24000	
193-39-5-----	Indeno (1,2,3-cd) pyrene	8300	
53-70-3-----	Dibenzo (a,h) anthracene	2800	J
191-24-2-----	Benzo (g,h,i) perylene	8600	

(1) - Cannot be separated from Diphenylamine



1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0261924

Lab Name: MITKEM CORPORATION Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: A1489

Matrix: (soil/water) SOIL Lab Sample ID: A1489-05A

Sample wt/vol: 30.3 (g/mL) G Lab File ID: S3C0107

Level: (low/med) LOW Date Received: 10/30/02

% Moisture: 20 decanted: (Y/N) N Date Extracted: 10/31/02

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 11/05/02

Injection Volume: 1.0 (uL) Dilution Factor: 3.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	6100	U
111-44-4	bis(2-Chloroethyl) Ether	6100	U
95-57-8	2-Chlorophenol	6100	U
541-73-1	1,3-Dichlorobenzene	6100	U
106-46-7	1,4-Dichlorobenzene	6100	U
95-50-1	1,2-Dichlorobenzene	6100	U
95-48-7	2-Methylphenol	6100	U
108-60-1	2,2'-oxybis(1-Chloropropane)	6100	U
106-44-5	4-Methylphenol	6100	U
621-64-7	N-Nitroso-di-n-propylamine	6100	U J
67-72-1	Hexachloroethane	6100	U
98-95-3	Nitrobenzene	6100	U
78-59-1	Isophorone	6100	U
88-75-5	2-Nitrophenol	6100	U
105-67-9	2,4-Dimethylphenol	6100	U
120-83-2	2,4-Dichlorophenol	6100	U
120-82-1	1,2,4-Trichlorobenzene	6100	U
91-20-3	Naphthalene	7100	
106-47-8	4-Chloroaniline	6100	U J
111-91-1	bis(2-Chloroethoxy)methane	6100	U
87-68-3	Hexachlorobutadiene	6100	U
59-50-7	4-Chloro-3-Methylphenol	6100	U
91-57-6	2-Methylnaphthalene	1800	J
77-47-4	Hexachlorocyclopentadiene	6100	U
88-06-2	2,4,6-Trichlorophenol	6100	U
95-95-4	2,4,5-Trichlorophenol	12000	U
91-58-7	2-Chloronaphthalene	6100	U
88-74-4	2-Nitroaniline	12000	U
131-11-3	Dimethylphthalate	6100	U
208-96-8	Acenaphthylene	11000	
606-20-2	2,6-Dinitrotoluene	6100	U
99-09-2	3-Nitroaniline	12000	U J
83-32-9	Acenaphthene	53000	

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0261924

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-05A

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: S3C0107

Level: (low/med) LOW

Date Received: 10/30/02

% Moisture: 20 decanted: (Y/N) N

Date Extracted: 10/31/02

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 11/05/02

Injection Volume: 1.0 (uL)

Dilution Factor: 3.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 19

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 2471-83-2	1H-INDENE, 1-ETHYLIDENE-	12.83	61000	NJ
2. 571-58-4	NAPHTHALENE, 1,4-DIMETHYL-	14.07	14000	NJ
3. 610-48-0	ANTHRACENE, 1-METHYL-	18.89	20000	NJ
4. 613-12-7	ANTHRACENE, 2-METHYL-	19.04	14000	NJ
5.	UNKNOWN	19.12	42000	J
6. 613-12-7	ANTHRACENE, 2-METHYL-	19.17	16000	NJ
7. 3674-66-6	PHENANTHRENE, 2,5-DIMETHYL-	20.03	24000	NJ
8.	UNKNOWN	20.11	16000	J
9. 206-44-0	FLUORANTHENE	20.55	17000	NJ
10. 243-17-4	11H-BENZO [B] FLUORENE	21.28	5000	NJ
11.	UNKNOWN	21.46	5900	J
12. 238-84-6	11H-BENZO [A] FLUORENE	21.52	8900	NJ
13. 243-17-4	11H-BENZO [B] FLUORENE	21.65	5800	NJ
14. 3442-78-2	PYRENE, 2-METHYL-	21.73	6500	NJ
15. 3353-12-6	PYRENE, 4-METHYL-	21.92	6300	NJ
16. 2381-21-7	PYRENE, 1-METHYL-	21.98	7200	NJ
17. 239-35-0	BENZO [B] NAPHTHO [2,1-D] THIOPH	22.79	4200	NJ
18. 3351-32-4	2-METHYLCHRYSENE	24.12	8100	NJ
19. 198-55-0	PERYLENE	26.22	15000	NJ
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0261924

Lab Name: MITKEM CORPORATION \_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_

SDG No.: A1489A

Matrix (soil/water): SOIL \_\_\_\_\_ Lab Sample ID: A1489-05A \_\_\_\_\_

Level (low/med): MED \_\_\_\_\_ Date Received: 10/11/02 \_\_\_\_\_

% Solids: 80.0 \_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.16	U	*N	CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0262444

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-06B

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: V1F0399

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 17

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
74-87-3	-----Chloromethane	6	U	J
75-01-4	-----Vinyl Chloride	6	U	
74-83-9	-----Bromomethane	6	U	J
75-00-3	-----Chloroethane	6	U	J
75-35-4	-----1,1-Dichloroethene	6	U	
67-64-1	-----Acetone	6	J	
75-15-0	-----Carbon Disulfide	6	U	
75-09-2	-----Methylene Chloride	3	JB	
156-60-5	-----trans-1,2-Dichloroethene	6	U	
75-34-3	-----1,1-Dichloroethane	6	U	
78-93-3	-----2-Butanone	6	U	
156-59-2	-----cis-1,2-Dichloroethene	6	U	
67-66-3	-----Chloroform	6	U	
71-55-6	-----1,1,1-Trichloroethane	6	U	
56-23-5	-----Carbon Tetrachloride	6	U	
107-06-2	-----1,2-Dichloroethane	6	U	
71-43-2	-----Benzene	6	U	
79-01-6	-----Trichloroethene	6	U	
78-87-5	-----1,2-Dichloropropane	6	U	
75-27-4	-----Bromodichloromethane	6	U	
10061-01-5	-----cis-1,3-Dichloropropene	6	U	
108-10-1	-----4-Methyl-2-pentanone	6	U	
108-88-3	-----Toluene	6	U	
10061-02-6	-----trans-1,3-Dichloropropene	6	U	
79-00-5	-----1,1,2-Trichloroethane	6	U	
127-18-4	-----Tetrachloroethene	6	U	
591-78-6	-----2-Hexanone	6	U	
124-48-1	-----Dibromochloromethane	6	U	
108-90-7	-----Chlorobenzene	6	U	
100-41-4	-----Ethylbenzene	3	J	
1330-20-7	-----Xylene (Total)	6	U	
100-42-5	-----Styrene	6	U	
75-25-2	-----Bromoform	6	U	
79-34-5	-----1,1,2,2-Tetrachloroethane	6	U	

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0262444

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-06B

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: V1F0399

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 17

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 12

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.31	1400	J
2. 496-11-7	INDANE	13.00	6	NJ
3. 95-13-6	INDENE	13.24	75	NJ
4. 65051-83-4	BENZENE, (1-METHYL-2-CYCLOPR	14.69	13	NJ
5. 270-82-6	BENZO [C] THIOPHENE	15.32	33	NJ
6. 1455-18-1	3-METHYLBENZOTHIOPHENE	16.33	6	NJ
7. 571-61-9	NAPHTHALENE, 1,5-DIMETHYL-	17.45	22	NJ
8. 581-40-8	NAPHTHALENE, 2,3-DIMETHYL-	17.61	58	NJ
9. 571-58-4	NAPHTHALENE, 1,4-DIMETHYL-	17.84	25	NJ
10. 575-41-7	NAPHTHALENE, 1,3-DIMETHYL-	17.99	10	NJ
11.	UNKNOWN	18.32	120	J
12. 2131-42-2	NAPHTHALENE, 1,4,6-TRIMETHYL	18.56	9	NJ
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0262444

Lab Name: MITKEM CORPORATION Contract:  
Lab Code: MITKEM Case No.: SAS No.: SDG No.: A1489  
Matrix: (soil/water) SOIL Lab Sample ID: A1489-06A  
Sample wt/vol: 30.9 (g/mL) G Lab File ID: S1D1523  
Level: (low/med) LOW Date Received: 10/11/02  
% Moisture: 17 decanted: (Y/N) N Date Extracted: 10/18/02  
Concentrated Ext.: Volume: 1000 (uL) Date Analyzed: 10/21/02  
Injection Volume: 1.0 (uL) Dilution Factor: 1.0  
GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

108-95-2-----	Phenol	390	U
111-44-4-----	bis (2-Chloroethyl) Ether	390	U
95-57-8-----	2-Chlorophenol	390	U
541-73-1-----	1,3-Dichlorobenzene	390	U
106-46-7-----	1,4-Dichlorobenzene	390	U
95-50-1-----	1,2-Dichlorobenzene	390	U
95-48-7-----	2-Methylphenol	390	U
108-60-1-----	2,2'-oxybis (1-Chloropropane)	390	U
106-44-5-----	4-Methylphenol	390	U
621-64-7-----	N-Nitroso-di-n-propylamine	390	U
67-72-1-----	Hexachloroethane	390	U
98-95-3-----	Nitrobenzene	390	U
78-59-1-----	Isophorone	390	U
88-75-5-----	2-Nitrophenol	390	U
105-67-9-----	2,4-Dimethylphenol	390	U
120-83-2-----	2,4-Dichlorophenol	390	U
120-82-1-----	1,2,4-Trichlorobenzene	390	U
91-20-3-----	Naphthalene	390	U
106-47-8-----	4-Chloroaniline	390	U
111-91-1-----	bis (2-Chloroethoxy) methane	390	U
87-68-3-----	Hexachlorobutadiene	390	U
59-50-7-----	4-Chloro-3-Methylphenol	390	U
91-57-6-----	2-Methylnaphthalene	390	U
77-47-4-----	Hexachlorocyclopentadiene	390	U
88-06-2-----	2,4,6-Trichlorophenol	390	U
95-95-4-----	2,4,5-Trichlorophenol	780	U
91-58-7-----	2-Chloronaphthalene	390	U
88-74-4-----	2-Nitroaniline	780	U
131-11-3-----	Dimethylphthalate	390	U
208-96-8-----	Acenaphthylene	45	J
606-20-2-----	2,6-Dinitrotoluene	390	U
99-09-2-----	3-Nitroaniline	780	U
83-32-9-----	Acenaphthene	330	J

FORM I SV-1

OLM03.0

1351

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0262444

Lab Name: MITKEM CORPORATION      Contract: \_\_\_\_\_

Lab Code: MITKEM      Case No.: \_\_\_\_\_      SAS No.: \_\_\_\_\_      SDG No.: A1489

Matrix: (soil/water) SOIL      Lab Sample ID: A1489-06A

Sample wt/vol:      30.9 (g/mL) G      Lab File ID: S1D1523

Level: (low/med) LOW      Date Received: 10/11/02

% Moisture: 17      decanted: (Y/N) N      Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)      Date Analyzed: 10/21/02

Injection Volume: 1.0 (uL)      Dilution Factor: 1.0

GPC Cleanup: (Y/N) N      pH: \_\_\_\_\_

CAS NO.      COMPOUND      CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG      Q

51-28-5-----	2,4-Dinitrophenol	780	U
100-02-7-----	4-Nitrophenol	780	U
132-64-9-----	Dibenzofuran	390	U
121-14-2-----	2,4-Dinitrotoluene	390	U
84-66-2-----	Diethylphthalate	390	U
7005-72-3-----	4-Chlorophenyl-phenylether	390	U
86-73-7-----	Fluorene	390	U
100-01-6-----	4-Nitroaniline	780	U
534-52-1-----	4,6-Dinitro-2-methylphenol	780	U
86-30-6-----	N-Nitrosodiphenylamine (1)	390	U
101-55-3-----	4-Bromophenyl-phenylether	390	U
118-74-1-----	Hexachlorobenzene	390	U
87-86-5-----	Pentachlorophenol	780	U
85-01-8-----	Phenanthrene	400	
120-12-7-----	Anthracene	93	J
86-74-8-----	Carbazole	390	U
84-74-2-----	Di-n-butylphthalate	390	U
206-44-0-----	Fluoranthene	150	J
129-00-0-----	Pyrene	260	J
85-68-7-----	Butylbenzylphthalate	390	U
91-94-1-----	3,3'-Dichlorobenzidine	390	U
56-55-3-----	Benzo(a)anthracene	80	J
218-01-9-----	Chrysene	69	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	390	U
117-84-0-----	Di-n-octylphthalate	390	U
205-99-2-----	Benzo(b)fluoranthene	390	U
207-08-9-----	Benzo(k)fluoranthene	390	U
50-32-8-----	Benzo(a)pyrene	41	J
193-39-5-----	Indeno(1,2,3-cd)pyrene	390	U
53-70-3-----	Dibenzo(a,h)anthracene	390	U
191-24-2-----	Benzo(g,h,i)perylene	390	U

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0262444

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-06A

Sample wt/vol: 30.9 (g/mL) G

Lab File ID: S1D1523

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 17 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/21/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.33	360	JB
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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0270003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-14C

Sample wt/vol: 5.3 (g/mL) G

Lab File ID: V1F0407

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 19

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	-----Chloromethane	6	UJ
75-01-4	-----Vinyl Chloride	6	U
74-83-9	-----Bromomethane	6	UJ
75-00-3	-----Chloroethane	6	UJ
75-35-4	-----1,1-Dichloroethene	6	U
67-64-1	-----Acetone	6	U
75-15-0	-----Carbon Disulfide	6	U
75-09-2	-----Methylene Chloride	2	JB
156-60-5	-----trans-1,2-Dichloroethene	6	U
75-34-3	-----1,1-Dichloroethane	6	U
78-93-3	-----2-Butanone	6	U
156-59-2	-----cis-1,2-Dichloroethene	6	U
67-66-3	-----Chloroform	6	U
71-55-6	-----1,1,1-Trichloroethane	6	U
56-23-5	-----Carbon Tetrachloride	6	U
107-06-2	-----1,2-Dichloroethane	6	U
71-43-2	-----Benzene	6	U
79-01-6	-----Trichloroethene	6	U
78-87-5	-----1,2-Dichloropropane	6	U
75-27-4	-----Bromodichloromethane	6	U
10061-01-5	-----cis-1,3-Dichloropropene	6	U
108-10-1	-----4-Methyl-2-pentanone	6	U
108-88-3	-----Toluene	6	U
10061-02-6	-----trans-1,3-Dichloropropene	6	U
79-00-5	-----1,1,2-Trichloroethane	6	U
127-18-4	-----Tetrachloroethene	6	U
591-78-6	-----2-Hexanone	6	U
124-48-1	-----Dibromochloromethane	6	U
108-90-7	-----Chlorobenzene	6	U
100-41-4	-----Ethylbenzene	6	U
1330-20-7	-----Xylene (Total)	6	U
100-42-5	-----Styrene	6	U
75-25-2	-----Bromoform	6	U
79-34-5	-----1,1,2,2-Tetrachloroethane	6	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0270003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-14C

Sample wt/vol: 5.3 (g/mL) G

Lab File ID: V1F0407

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 19

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0270003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-14A

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: S3B9944

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/23/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

108-95-2-----	Phenol	400	U
111-44-4-----	bis(2-Chloroethyl) Ether	400	UJ
95-57-8-----	2-Chlorophenol	400	U
541-73-1-----	1,3-Dichlorobenzene	400	UJ
106-46-7-----	1,4-Dichlorobenzene	400	UJ
95-50-1-----	1,2-Dichlorobenzene	400	UJ
95-48-7-----	2-Methylphenol	400	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	400	UJ
106-44-5-----	4-Methylphenol	400	U
621-64-7-----	N-Nitroso-di-n-propylamine	400	UJ
67-72-1-----	Hexachloroethane	400	UJ
98-95-3-----	Nitrobenzene	400	UJ
78-59-1-----	Isophorone	400	UJ
88-75-5-----	2-Nitrophenol	400	U
105-67-9-----	2,4-Dimethylphenol	400	U
120-83-2-----	2,4-Dichlorophenol	400	U
120-82-1-----	1,2,4-Trichlorobenzene	400	UJ
91-20-3-----	Naphthalene	400	UJ
106-47-8-----	4-Chloroaniline	400	UJ
111-91-1-----	bis(2-Chloroethoxy)methane	400	UJ
87-68-3-----	Hexachlorobutadiene	400	UJ
59-50-7-----	4-Chloro-3-Methylphenol	400	U
91-57-6-----	2-Methylnaphthalene	400	UJ
77-47-4-----	Hexachlorocyclopentadiene	400	UJ
88-06-2-----	2,4,6-Trichlorophenol	400	U
95-95-4-----	2,4,5-Trichlorophenol	810	U
91-58-7-----	2-Chloronaphthalene	400	UJ
88-74-4-----	2-Nitroaniline	810	UJ
131-11-3-----	Dimethylphthalate	400	UJ
208-96-8-----	Acenaphthylene	400	UJ
606-20-2-----	2,6-Dinitrotoluene	400	UJ
99-09-2-----	3-Nitroaniline	810	UJ
83-32-9-----	Acenaphthene	400	UJ

FORM I SV-1

OIM03.0

1368

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0270003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-14A

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: S3B9944

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/23/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

51-28-5-----	2,4-Dinitrophenol	810	U
100-02-7-----	4-Nitrophenol	810	U
132-64-9-----	Dibenzofuran	400	U
121-14-2-----	2,4-Dinitrotoluene	400	U
84-66-2-----	Diethylphthalate	400	U
7005-72-3-----	4-Chlorophenyl-phenylether	400	U
86-73-7-----	Fluorene	400	U
100-01-6-----	4-Nitroaniline	810	U
534-52-1-----	4,6-Dinitro-2-methylphenol	810	U
86-30-6-----	N-Nitrosodiphenylamine (1)	400	U
101-55-3-----	4-Bromophenyl-phenylether	400	U
118-74-1-----	Hexachlorobenzene	400	U
87-86-5-----	Pentachlorophenol	810	U
85-01-8-----	Phenanthrene	400	U
120-12-7-----	Anthracene	400	U
86-74-8-----	Carbazole	400	U
84-74-2-----	Di-n-butylphthalate	400	U
206-44-0-----	Fluoranthene	400	U
129-00-0-----	Pyrene	400	U
85-68-7-----	Butylbenzylphthalate	400	U
91-94-1-----	3,3'-Dichlorobenzidine	400	U
56-55-3-----	Benzo(a)anthracene	400	U
218-01-9-----	Chrysene	400	U
117-81-7-----	bis(2-Ethylhexyl)phthalate	400	U
117-84-0-----	Di-n-octylphthalate	400	U
205-99-2-----	Benzo(b)fluoranthene	400	U
207-08-9-----	Benzo(k)fluoranthene	400	U
50-32-8-----	Benzo(a)pyrene	400	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	400	U
53-70-3-----	Dibenzo(a,h)anthracene	400	U
191-24-2-----	Benzo(g,h,i)perylene	400	U

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0270003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-14A

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: S3B9944

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/23/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

Number TICs found: 4

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.78	990	J
2. 10544-50-0	SULFUR, MOL. (S8)	17.37	2600	NJ
3. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	18.07	430	NJ
4.	UNKNOWN	29.73	1600	J
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0270003RE

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-14ARE

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: S2D0080

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/28/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/01/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

108-95-2-----	Phenol	78	J
111-44-4-----	bis(2-Chloroethyl) Ether	400	UJ
95-57-8-----	2-Chlorophenol	400	UJ
541-73-1-----	1,3-Dichlorobenzene	400	UJ
106-46-7-----	1,4-Dichlorobenzene	400	UJ
95-50-1-----	1,2-Dichlorobenzene	400	UJ
95-48-7-----	2-Methylphenol	400	UJ
108-60-1-----	2,2'-oxybis(1-Chloropropane)	400	UJ
106-44-5-----	4-Methylphenol	400	UJ
621-64-7-----	N-Nitroso-di-n-propylamine	400	UJ
67-72-1-----	Hexachloroethane	400	UJ
98-95-3-----	Nitrobenzene	400	UJ
78-59-1-----	Isophorone	400	UJ
88-75-5-----	2-Nitrophenol	400	UJ
105-67-9-----	2,4-Dimethylphenol	400	UJ
120-83-2-----	2,4-Dichlorophenol	400	UJ
120-82-1-----	1,2,4-Trichlorobenzene	400	UJ
91-20-3-----	Naphthalene	400	UJ
106-47-8-----	4-Chloroaniline	400	UJ
111-91-1-----	bis(2-Chloroethoxy) methane	400	UJ
87-68-3-----	Hexachlorobutadiene	400	UJ
59-50-7-----	4-Chloro-3-Methylphenol	400	UJ
91-57-6-----	2-Methylnaphthalene	400	UJ
77-47-4-----	Hexachlorocyclopentadiene	400	UJ
88-06-2-----	2,4,6-Trichlorophenol	400	UJ
95-95-4-----	2,4,5-Trichlorophenol	820	UJ
91-58-7-----	2-Chloronaphthalene	400	UJ
88-74-4-----	2-Nitroaniline	820	UJ
131-11-3-----	Dimethylphthalate	400	UJ
208-96-8-----	Acenaphthylene	400	UJ
606-20-2-----	2,6-Dinitrotoluene	400	UJ
99-09-2-----	3-Nitroaniline	820	UJ
83-32-9-----	Acenaphthene	400	UJ

FORM I SV-1

OLM03.0

1382

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0270003RE

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-14ARE

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: S2D0080

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/28/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/01/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

51-28-5-----	2,4-Dinitrophenol	820	U J
100-02-7-----	4-Nitrophenol	820	U J
132-64-9-----	Dibenzofuran	400	U J
121-14-2-----	2,4-Dinitrotoluene	400	U J
84-66-2-----	Diethylphthalate	400	U J
7005-72-3-----	4-Chlorophenyl-phenylether	400	U J
86-73-7-----	Fluorene	400	U J
100-01-6-----	4-Nitroaniline	820	U J
534-52-1-----	4,6-Dinitro-2-methylphenol	820	U J
86-30-6-----	N-Nitrosodiphenylamine (1)	400	U J
101-55-3-----	4-Bromophenyl-phenylether	400	U J
118-74-1-----	Hexachlorobenzene	400	U J
87-86-5-----	Pentachlorophenol	820	U J
85-01-8-----	Phenanthrene	400	U J
120-12-7-----	Anthracene	400	U J
86-74-8-----	Carbazole	400	U J
84-74-2-----	Di-n-butylphthalate	400	U J
206-44-0-----	Fluoranthene	400	U J
129-00-0-----	Pyrene	58	J
85-68-7-----	Butylbenzylphthalate	400	U J
91-94-1-----	3,3'-Dichlorobenzidine	400	U J
56-55-3-----	Benzo(a)anthracene	400	U J
218-01-9-----	Chrysene	400	U J
117-81-7-----	bis(2-Ethylhexyl)phthalate	57	J
117-84-0-----	Di-n-octylphthalate	400	U J
205-99-2-----	Benzo(b)fluoranthene	400	U J
207-08-9-----	Benzo(k)fluoranthene	400	U J
50-32-8-----	Benzo(a)pyrene	400	U J
193-39-5-----	Indeno(1,2,3-cd)pyrene	400	U J
53-70-3-----	Dibenzo(a,h)anthracene	400	U J
191-24-2-----	Benzo(g,h,i)perylene	400	U J

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0270003RE

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-14ARE

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: S2D0080

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/28/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/01/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 9

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.40	1000	JB
2.	UNKNOWN	10.23	210	JB
3. 872-05-9	1-DECENE	13.52	790	NJ
4.	UNKNOWN	19.87	430	J
5. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	19.90	1300	NJ
6. 123-95-5	OCTADECANOIC ACID, BUTYL EST	21.31	250	NJ
7. 791-28-6	PHOSPHINE OXIDE, TRIPHENYL-	22.46	210	NJ
8.	UNKNOWN	25.58	550	J
9.	UNKNOWN	26.33	640	J
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0270003

Lab Name: MITKEM CORPORATION \_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: A1489A

Matrix (soil/water): SOIL \_\_\_\_\_ Lab Sample ID: A1489-14A \_\_\_\_\_

Level (low/med): MED \_\_\_\_\_ Date Received: 10/11/02 \_\_\_\_\_

% Solids: 81.0 \_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.16	U	*N	CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation****Date:** 08-Nov-02**CLIENT:** GEI Consultants, Inc.**Project:** Keyspan**Client Sample ID:** SED0270003**Collection Date:** 10/09/02 15:15**Lab ID:** A1489-14

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
		<b>SM2340_S</b>				
Hardness, Calcium/Magnesium (As CaCO3)	29000		240	mg/Kg CaCO3	1	10/24/02 15:38
<b>SOIL AND WASTE PH</b>						
		<b>SW9045C_S</b>				
pH	7.7		1.0	pH Units	1	10/21/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0270330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-15C

Sample wt/vol: 5.1 (g/mL) G

Lab File ID: V1F0408

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 17

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/KG	
74-87-3	-----Chloromethane	6	U	J
75-01-4	-----Vinyl Chloride	6	U	
74-83-9	-----Bromomethane	6	U	J
75-00-3	-----Chloroethane	6	U	J
75-35-4	-----1,1-Dichloroethene	6	U	
67-64-1	-----Acetone	8		
75-15-0	-----Carbon Disulfide	1	J	
75-09-2	-----Methylene Chloride	3	JB	
156-60-5	-----trans-1,2-Dichloroethene	6	U	
75-34-3	-----1,1-Dichloroethane	6	U	
78-93-3	-----2-Butanone	6	U	
156-59-2	-----cis-1,2-Dichloroethene	6	U	
67-66-3	-----Chloroform	6	U	
71-55-6	-----1,1,1-Trichloroethane	6	U	
56-23-5	-----Carbon Tetrachloride	6	U	
107-06-2	-----1,2-Dichloroethane	6	U	
71-43-2	-----Benzene	6	U	
79-01-6	-----Trichloroethene	6	U	
78-87-5	-----1,2-Dichloropropane	6	U	
75-27-4	-----Bromodichloromethane	6	U	
10061-01-5	-----cis-1,3-Dichloropropene	6	U	
108-10-1	-----4-Methyl-2-pentanone	6	U	
108-88-3	-----Toluene	6	U	
10061-02-6	-----trans-1,3-Dichloropropene	6	U	
79-00-5	-----1,1,2-Trichloroethane	6	U	
127-18-4	-----Tetrachloroethene	6	U	
591-78-6	-----2-Hexanone	6	U	
124-48-1	-----Dibromochloromethane	6	U	
108-90-7	-----Chlorobenzene	6	U	
100-41-4	-----Ethylbenzene	6	U	
1330-20-7	-----Xylene (Total)	6	U	
100-42-5	-----Styrene	6	U	
75-25-2	-----Bromoform	6	U	
79-34-5	-----1,1,2,2-Tetrachloroethane	6	U	

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0270330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-15C

Sample wt/vol: 5.1 (g/mL) G

Lab File ID: V1F0408

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 17

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0270330

Lab Name: MITKEM CORPORATION      Contract: \_\_\_\_\_

Lab Code: MITKEM      Case No.: \_\_\_\_\_      SAS No.: \_\_\_\_\_      SDG No.: A1489

Matrix: (soil/water) SOIL      Lab Sample ID: A1489-15A

Sample wt/vol:      30.6 (g/mL) G      Lab File ID:      S1D1530

Level:      (low/med) LOW      Date Received: 10/11/02

% Moisture: 17      decanted: (Y/N) N      Date Extracted: 10/18/02

Concentrated Extract Volume:      1000 (uL)      Date Analyzed: 10/22/02

Injection Volume:      1.0 (uL)      Dilution Factor: 1.0

GPC Cleanup:      (Y/N) N      pH: \_\_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
108-95-2	Phenol	390	U	
111-44-4	bis(2-Chloroethyl) Ether	390	UJ	
95-57-8	2-Chlorophenol	390	U	
541-73-1	1,3-Dichlorobenzene	390	UJ	
106-46-7	1,4-Dichlorobenzene	390	UJ	
95-50-1	1,2-Dichlorobenzene	390	UJ	
95-48-7	2-Methylphenol	390	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	390	UJ	
106-44-5	4-Methylphenol	390	U	
621-64-7	N-Nitroso-di-n-propylamine	390	UJ	
67-72-1	Hexachloroethane	390	UJ	
98-95-3	Nitrobenzene	390	UJ	
78-59-1	Isophorone	390	UJ	
88-75-5	2-Nitrophenol	390	U	
105-67-9	2,4-Dimethylphenol	390	U	
120-83-2	2,4-Dichlorophenol	390	U	
120-82-1	1,2,4-Trichlorobenzene	390	UJ	
91-20-3	Naphthalene	48	J	
106-47-8	4-Chloroaniline	390	UJ	
111-91-1	bis(2-Chloroethoxy)methane	390	UJ	
87-68-3	Hexachlorobutadiene	390	UJ	
59-50-7	4-Chloro-3-Methylphenol	390	U	
91-57-6	2-Methylnaphthalene	390	UJ	
77-47-4	Hexachlorocyclopentadiene	390	UJ	
88-06-2	2,4,6-Trichlorophenol	390	U	
95-95-4	2,4,5-Trichlorophenol	790	U	
91-58-7	2-Chloronaphthalene	390	UJ	
88-74-4	2-Nitroaniline	790	UJ	
131-11-3	Dimethylphthalate	390	UJ	
208-96-8	Acenaphthylene	65	J	
606-20-2	2,6-Dinitrotoluene	390	UJ	
99-09-2	3-Nitroaniline	790	UJ	
83-32-9	Acenaphthene	390	UJ	

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0270330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-15A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S1D1530

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 17 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/22/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	Q
51-28-5	2,4-Dinitrophenol	790 U
100-02-7	4-Nitrophenol	790 U
132-64-9	Dibenzofuran	390 U J
121-14-2	2,4-Dinitrotoluene	390 U J
84-66-2	Diethylphthalate	390 U J
7005-72-3	4-Chlorophenyl-phenylether	390 U J
86-73-7	Fluorene	60 J
100-01-6	4-Nitroaniline	790 U J
534-52-1	4,6-Dinitro-2-methylphenol	790 U
86-30-6	N-Nitrosodiphenylamine (1)	390 U J
101-55-3	4-Bromophenyl-phenylether	390 U J
118-74-1	Hexachlorobenzene	390 U J
87-86-5	Pentachlorophenol	790 U J
85-01-8	Phenanthrene	580 J
120-12-7	Anthracene	210 J
86-74-8	Carbazole	390 U J
84-74-2	Di-n-butylphthalate	390 U J
206-44-0	Fluoranthene	840 J
129-00-0	Pyrene	2000 J
85-68-7	Butylbenzylphthalate	390 U J
91-94-1	3,3'-Dichlorobenzidine	390 U J
56-55-3	Benzo(a)anthracene	640 J
218-01-9	Chrysene	640 J
117-81-7	bis(2-Ethylhexyl)phthalate	390 U J
117-84-0	Di-n-octylphthalate	390 U J
205-99-2	Benzo(b)fluoranthene	360 J
207-08-9	Benzo(k)fluoranthene	160 J
50-32-8	Benzo(a)pyrene	470 J
193-39-5	Indeno(1,2,3-cd)pyrene	140 J
53-70-3	Dibenzo(a,h)anthracene	45 J
191-24-2	Benzo(g,h,i)perylene	140 J

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0270330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-15A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S1D1530

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 17 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 10/22/02

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 13

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.33	1100	JB
2. 613-12-7	ANTHRACENE, 2-METHYL-	19.00	460	NJ
3. 613-12-7	ANTHRACENE, 2-METHYL-	19.06	330	NJ
4.	UNKNOWN	19.22	810	J
5. 613-12-7	ANTHRACENE, 2-METHYL-	19.27	410	NJ
6. 3674-66-6	PHENANTHRENE, 2,5-DIMETHYL-	20.14	430	NJ
7.	UNKNOWN	20.21	350	J
8. 206-44-0	FLUORANTHENE	20.66	290	NJ
9. 243-17-4	11H-BENZO [B] FLUORENE	21.61	390	NJ
10. 243-17-4	11H-BENZO [B] FLUORENE	21.75	220	NJ
11. 3442-78-2	PYRENE, 2-METHYL-	21.82	290	NJ
12. 3442-78-2	PYRENE, 2-METHYL-	22.01	240	NJ
13. 2381-21-7	PYRENE, 1-METHYL-	22.07	260	NJ
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0270330RE

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-15ARE

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: S2D0081

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 17 decanted: (Y/N) N

Date Extracted: 10/28/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/01/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

108-95-2-----	Phenol	400	U J
111-44-4-----	bis(2-Chloroethyl) Ether	400	U J
95-57-8-----	2-Chlorophenol	400	U J
541-73-1-----	1,3-Dichlorobenzene	400	U J
106-46-7-----	1,4-Dichlorobenzene	400	U J
95-50-1-----	1,2-Dichlorobenzene	400	U J
95-48-7-----	2-Methylphenol	400	U J
108-60-1-----	2,2'-oxybis(1-Chloropropane)	400	U J
106-44-5-----	4-Methylphenol	400	U J
621-64-7-----	N-Nitroso-di-n-propylamine	400	U J
67-72-1-----	Hexachloroethane	400	U J
98-95-3-----	Nitrobenzene	400	U J
78-59-1-----	Isophorone	400	U J
88-75-5-----	2-Nitrophenol	400	U J
105-67-9-----	2,4-Dimethylphenol	400	U J
120-83-2-----	2,4-Dichlorophenol	400	U J
120-82-1-----	1,2,4-Trichlorobenzene	400	U J
91-20-3-----	Naphthalene	120	J
106-47-8-----	4-Chloroaniline	400	U J
111-91-1-----	bis(2-Chloroethoxy)methane	400	U J
87-68-3-----	Hexachlorobutadiene	400	U J
59-50-7-----	4-Chloro-3-Methylphenol	400	U J
91-57-6-----	2-Methylnaphthalene	92	J
77-47-4-----	Hexachlorocyclopentadiene	400	U J
88-06-2-----	2,4,6-Trichlorophenol	400	U J
95-95-4-----	2,4,5-Trichlorophenol	800	U J
91-58-7-----	2-Chloronaphthalene	400	U J
88-74-4-----	2-Nitroaniline	800	U J
131-11-3-----	Dimethylphthalate	400	U J
208-96-8-----	Acenaphthylene	390	J
606-20-2-----	2,6-Dinitrotoluene	400	U J
99-09-2-----	3-Nitroaniline	800	U J
83-32-9-----	Acenaphthene	400	U J



1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0270330RE

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-15ARE

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: S2D0081

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 17 decanted: (Y/N) N

Date Extracted: 10/28/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/01/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

51-28-5-----	2,4-Dinitrophenol	800	U
100-02-7-----	4-Nitrophenol	800	U
132-64-9-----	Dibenzofuran	400	U
121-14-2-----	2,4-Dinitrotoluene	400	U
84-66-2-----	Diethylphthalate	400	U
7005-72-3-----	4-Chlorophenyl-phenylether	400	U
86-73-7-----	Fluorene	110	J
100-01-6-----	4-Nitroaniline	800	U
534-52-1-----	4,6-Dinitro-2-methylphenol	800	U
86-30-6-----	N-Nitrosodiphenylamine (1)	400	U
101-55-3-----	4-Bromophenyl-phenylether	400	U
118-74-1-----	Hexachlorobenzene	400	U
87-86-5-----	Pentachlorophenol	800	U
85-01-8-----	Phenanthrene	820	J
120-12-7-----	Anthracene	500	J
86-74-8-----	Carbazole	400	U
84-74-2-----	Di-n-butylphthalate	400	U
206-44-0-----	Fluoranthene	1800	J
129-00-0-----	Pyrene	6500	J
85-68-7-----	Butylbenzylphthalate	400	U
91-94-1-----	3,3'-Dichlorobenzidine	400	U
56-55-3-----	Benzo(a)anthracene	2000	J
218-01-9-----	Chrysene	2000	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	45	J
117-84-0-----	Di-n-octylphthalate	400	U
205-99-2-----	Benzo(b)fluoranthene	1600	J
207-08-9-----	Benzo(k)fluoranthene	680	J
50-32-8-----	Benzo(a)pyrene	1900	J
193-39-5-----	Indeno(1,2,3-cd)pyrene	460	J
53-70-3-----	Dibenzo(a,h)anthracene	170	J
191-24-2-----	Benzo(g,h,i)perylene	540	J

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0270330RE

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-15ARE

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: S2D0081

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 17 decanted: (Y/N) N

Date Extracted: 10/28/02

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 11/01/02

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 16

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.41	1100	JB
2. 613-12-7	ANTHRACENE, 2-METHYL-	17.87	1200	NJ
3.	UNKNOWN	18.08	2200	J
4. 613-12-7	ANTHRACENE, 2-METHYL-	18.14	910	NJ
5. 35465-71-5	2-PHENYLNAPHTHALENE	18.48	1000	NJ
6. 3674-66-6	PHENANTHRENE, 2,5-DIMETHYL-	18.99	1300	NJ
7.	UNKNOWN	19.05	1200	J
8. 27765-96-4	1,4-ETHENOANTHRACENE, 1,4-DI	19.17	740	NJ
9. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	19.93	4300	NJ
10.	UNKNOWN	20.40	500	J
11. 238-84-6	11H-BENZO [A] FLUORENE	20.45	940	NJ
12. 243-17-4	11H-BENZO [B] FLUORENE	20.58	540	NJ
13. 3442-78-2	PYRENE, 2-METHYL-	20.65	550	NJ
14. 2381-21-7	PYRENE, 1-METHYL-	20.82	580	NJ
15. 3442-78-2	PYRENE, 2-METHYL-	20.89	660	NJ
16. 64401-21-4	PYRENE, 1,3-DIMETHYL-	21.44	560	NJ
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0270330

Lab Name: MITKEM\_CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: A1489A

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-15A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 83.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.23	B	J *N	CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation**

Date: 08-Nov-02

CLIENT: GEI Consultants, Inc.

Project: Keyspan

Client Sample ID: SED0270330

Collection Date: 10/09/02 15:20

Lab ID: A1489-15

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	12000	SM2340_S	230	mg/Kg CaCO3	1	10/24/02 15:38
<b>SOIL AND WASTE PH</b>						
pH	7.5	SW9045C_S	1.0	pH Units	1	10/21/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED028003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-12C

Sample wt/vol: 5.3 (g/mL) G

Lab File ID: V1F0403

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 17

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/KG	
74-87-3	Chloromethane	6	UJ	
75-01-4	Vinyl Chloride	6	U	
74-83-9	Bromomethane	6	UJ	
75-00-3	Chloroethane	6	UJ	
75-35-4	1,1-Dichloroethene	6	U	
67-64-1	Acetone	6	U	
75-15-0	Carbon Disulfide	6	U	
75-09-2	Methylene Chloride	3	JB	
156-60-5	trans-1,2-Dichloroethene	6	U	
75-34-3	1,1-Dichloroethane	6	U	
78-93-3	2-Butanone	6	U	
156-59-2	cis-1,2-Dichloroethene	6	U	
67-66-3	Chloroform	6	U	
71-55-6	1,1,1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
107-06-2	1,2-Dichloroethane	6	U	
71-43-2	Benzene	6	U	
79-01-6	Trichloroethene	6	U	
78-87-5	1,2-Dichloropropane	6	U	
75-27-4	Bromodichloromethane	6	U	
10061-01-5	cis-1,3-Dichloropropene	6	U	
108-10-1	4-Methyl-2-pentanone	6	U	
108-88-3	Toluene	6	U	
10061-02-6	trans-1,3-Dichloropropene	6	U	
79-00-5	1,1,2-Trichloroethane	6	U	
127-18-4	Tetrachloroethene	6	U	
591-78-6	2-Hexanone	6	U	
124-48-1	Dibromochloromethane	6	U	
108-90-7	Chlorobenzene	6	U	
100-41-4	Ethylbenzene	6	U	
1330-20-7	Xylene (Total)	6	U	
100-42-5	Styrene	6	U	
75-25-2	Bromoform	6	U	
79-34-5	1,1,2,2-Tetrachloroethane	6	U	

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED028003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-12C

Sample wt/vol: 5.3 (g/mL) G

Lab File ID: V1F0403

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 17

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED028003

Lab Name: MITKEM CORPORATION Contract:  
Lab Code: MITKEM Case No.: SAS No.: SDG No.: A1489  
Matrix: (soil/water) SOIL Lab Sample ID: A1489-12A  
Sample wt/vol: 30.5 (g/mL) G Lab File ID: S3C0244  
Level: (low/med) LOW Date Received: 10/11/02  
% Moisture: 17 decanted: (Y/N) N Date Extracted: 10/18/02  
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/13/02  
Injection Volume: 1.0 (uL) Dilution Factor: 1.0  
GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

108-95-2-----	Phenol	75	J
111-44-4-----	bis(2-Chloroethyl) Ether	390	U
95-57-8-----	2-Chlorophenol	390	U
541-73-1-----	1,3-Dichlorobenzene	390	U
106-46-7-----	1,4-Dichlorobenzene	390	U
95-50-1-----	1,2-Dichlorobenzene	390	U
95-48-7-----	2-Methylphenol	390	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	390	U
106-44-5-----	4-Methylphenol	390	U
621-64-7-----	N-Nitroso-di-n-propylamine	390	U
67-72-1-----	Hexachloroethane	390	U
98-95-3-----	Nitrobenzene	390	U
78-59-1-----	Isophorone	390	U
88-75-5-----	2-Nitrophenol	390	U
105-67-9-----	2,4-Dimethylphenol	390	U
120-83-2-----	2,4-Dichlorophenol	390	U
120-82-1-----	1,2,4-Trichlorobenzene	390	U
91-20-3-----	Naphthalene	390	U
106-47-8-----	4-Chloroaniline	390	U
111-91-1-----	bis(2-Chloroethoxy) methane	390	U
87-68-3-----	Hexachlorobutadiene	390	U
59-50-7-----	4-Chloro-3-Methylphenol	390	U
91-57-6-----	2-Methylnaphthalene	390	U
77-47-4-----	Hexachlorocyclopentadiene	390	U
88-06-2-----	2,4,6-Trichlorophenol	390	U
95-95-4-----	2,4,5-Trichlorophenol	790	U
91-58-7-----	2-Chloronaphthalene	390	U
88-74-4-----	2-Nitroaniline	790	U
131-11-3-----	Dimethylphthalate	390	U
208-96-8-----	Acenaphthylene	390	U
606-20-2-----	2,6-Dinitrotoluene	390	U
99-09-2-----	3-Nitroaniline	790	U
83-32-9-----	Acenaphthene	390	U

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED028003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-12A

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: S3C0244

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 17 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 11/13/02

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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51-28-5-----	2,4-Dinitrophenol	790	U
100-02-7-----	4-Nitrophenol	790	U
132-64-9-----	Dibenzofuran	390	U
121-14-2-----	2,4-Dinitrotoluene	390	U
84-66-2-----	Diethylphthalate	390	U
7005-72-3-----	4-Chlorophenyl-phenylether	390	U
86-73-7-----	Fluorene	390	U
100-01-6-----	4-Nitroaniline	790	U
534-52-1-----	4,6-Dinitro-2-methylphenol	790	U
86-30-6-----	N-Nitrosodiphenylamine (1)	390	U
101-55-3-----	4-Bromophenyl-phenylether	390	U
118-74-1-----	Hexachlorobenzene	390	U
87-86-5-----	Pentachlorophenol	790	U
85-01-8-----	Phenanthrene	48	J
120-12-7-----	Anthracene	390	U
86-74-8-----	Carbazole	390	U
84-74-2-----	Di-n-butylphthalate	390	U
206-44-0-----	Fluoranthene	87	J
129-00-0-----	Pyrene	200	J
85-68-7-----	Butylbenzylphthalate	390	U
91-94-1-----	3,3'-Dichlorobenzidine	390	U
56-55-3-----	Benzo(a)anthracene	90	J
218-01-9-----	Chrysene	77	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	390	U
117-84-0-----	Di-n-octylphthalate	180	J
205-99-2-----	Benzo(b)fluoranthene	65	J
207-08-9-----	Benzo(k)fluoranthene	390	U
50-32-8-----	Benzo(a)pyrene	73	J
193-39-5-----	Indeno(1,2,3-cd)pyrene	390	U
53-70-3-----	Dibenzo(a,h)anthracene	390	U
191-24-2-----	Benzo(g,h,i)perylene	390	U

(1) - Cannot be separated from Diphenylamine



1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED028003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-12A

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: S3C0244

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 17 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/13/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 12

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.70	860	J
2. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYL)	20.34	910	NJ
3.	UNKNOWN	24.14	170	J
4.	UNKNOWN	24.22	2000	J
5.	UNKNOWN	24.40	820	J
6. 28553-12-0	1,2-BENZENEDICARBOXYLIC ACID	24.48	380	NJ
7.	UNKNOWN	24.59	1100	J
8.	UNKNOWN	24.66	300	J
9.	UNKNOWN	24.86	230	J
10.	UNKNOWN	24.97	740	J
11.	UNKNOWN	25.18	360	J
12.	UNKNOWN	26.29	240	J
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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED028003

Lab Name: MITKEM\_CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: A1489A

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-12A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 83.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.43	B	J*N	CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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# Mitkem Corporation

Date: 08-Nov-02

CLIENT: GEI Consultants, Inc.

Project: Keyspan

Client Sample ID: SED028003

Collection Date: 10/09/02 14:50

Lab ID: A1489-12

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO <sub>3</sub> )	58000		230	mg/Kg CaCO <sub>3</sub>	1	10/24/02 15:38
<b>SOIL AND WASTE PH</b>						
pH	7.9		1.0	pH Units	1	10/21/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0280330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-13C

Sample wt/vol: 5.1 (g/mL) G

Lab File ID: V1F0440

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 19

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3-----	Chloromethane	6 U	
75-01-4-----	Vinyl Chloride	6 U	
74-83-9-----	Bromomethane	6 U	
75-00-3-----	Chloroethane	6 U	
75-35-4-----	1,1-Dichloroethene	6 U	
67-64-1-----	Acetone	6 U	
75-15-0-----	Carbon Disulfide	6 U	
75-09-2-----	Methylene Chloride	3 JB	
156-60-5-----	trans-1,2-Dichloroethene	6 U	
75-34-3-----	1,1-Dichloroethane	6 U	
78-93-3-----	2-Butanone	6 U	
156-59-2-----	cis-1,2-Dichloroethene	6 U	
67-66-3-----	Chloroform	6 U	
71-55-6-----	1,1,1-Trichloroethane	6 U	
56-23-5-----	Carbon Tetrachloride	6 U	
107-06-2-----	1,2-Dichloroethane	6 U	
71-43-2-----	Benzene	6 U	
79-01-6-----	Trichloroethene	6 U	
78-87-5-----	1,2-Dichloropropane	6 U	
75-27-4-----	Bromodichloromethane	6 U	
10061-01-5-----	cis-1,3-Dichloropropene	6 U	
108-10-1-----	4-Methyl-2-pentanone	6 U	
108-88-3-----	Toluene	6 U	
10061-02-6-----	trans-1,3-Dichloropropene	6 U	
79-00-5-----	1,1,2-Trichloroethane	6 U	
127-18-4-----	Tetrachloroethene	6 U	
591-78-6-----	2-Hexanone	6 U	
124-48-1-----	Dibromochloromethane	6 U	
108-90-7-----	Chlorobenzene	6 U	
100-41-4-----	Ethylbenzene	6 U	
1330-20-7-----	Xylene (Total)	6 U	
100-42-5-----	Styrene	6 U	
75-25-2-----	Bromoform	6 U	
79-34-5-----	1,1,2,2-Tetrachloroethane	6 U	

FORM I VOA

OLM03.0

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0280330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-13C

Sample wt/vol: 5.1 (g/mL) G

Lab File ID: V1F0440

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 19

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 6

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 90-12-0	NAPHTHALENE, 1-METHYL-	16.57	65	NJ
2. 581-42-0	NAPHTHALENE, 2,6-DIMETHYL-	17.45	11	NJ
3. 581-40-8	NAPHTHALENE, 2,3-DIMETHYL-	17.60	26	NJ
4. 581-40-8	NAPHTHALENE, 2,3-DIMETHYL-	17.85	12	NJ
5. 83-32-9	ACENAPHTHENE	18.31	67	NJ
6. 829-26-5	NAPHTHALENE, 2,3,6-TRIMETHYL	18.57	6	NJ
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0280330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-13A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S1D1522

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/21/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

108-95-2-----	Phenol	400	U
111-44-4-----	bis(2-Chloroethyl) Ether	400	UJ
95-57-8-----	2-Chlorophenol	400	U
541-73-1-----	1,3-Dichlorobenzene	400	UJ
106-46-7-----	1,4-Dichlorobenzene	400	UJ
95-50-1-----	1,2-Dichlorobenzene	400	UJ
95-48-7-----	2-Methylphenol	400	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	400	UJ
106-44-5-----	4-Methylphenol	400	U
621-64-7-----	N-Nitroso-di-n-propylamine	400	UJ
67-72-1-----	Hexachloroethane	400	UJ
98-95-3-----	Nitrobenzene	400	UJ
78-59-1-----	Isophorone	400	UJ
88-75-5-----	2-Nitrophenol	400	U
105-67-9-----	2,4-Dimethylphenol	400	U
120-83-2-----	2,4-Dichlorophenol	400	U
120-82-1-----	1,2,4-Trichlorobenzene	400	UJ
91-20-3-----	Naphthalene	400	UJ
106-47-8-----	4-Chloroaniline	400	UJ
111-91-1-----	bis(2-Chloroethoxy) methane	400	UJ
87-68-3-----	Hexachlorobutadiene	400	UJ
59-50-7-----	4-Chloro-3-Methylphenol	400	U
91-57-6-----	2-Methylnaphthalene	400	UJ
77-47-4-----	Hexachlorocyclopentadiene	400	UJ
88-06-2-----	2,4,6-Trichlorophenol	400	U
95-95-4-----	2,4,5-Trichlorophenol	810	U
91-58-7-----	2-Chloronaphthalene	400	UJ
88-74-4-----	2-Nitroaniline	810	UJ
131-11-3-----	Dimethylphthalate	400	UJ
208-96-8-----	Acenaphthylene	400	UJ
606-20-2-----	2,6-Dinitrotoluene	400	UJ
99-09-2-----	3-Nitroaniline	810	UJ
83-32-9-----	Acenaphthene	400	UJ

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0280330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-13A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S1D1522

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/21/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

51-28-5-----	2,4-Dinitrophenol	810	U
100-02-7-----	4-Nitrophenol	810	U
132-64-9-----	Dibenzofuran	400	UJ
121-14-2-----	2,4-Dinitrotoluene	400	UJ
84-66-2-----	Diethylphthalate	400	UJ
7005-72-3-----	4-Chlorophenyl-phenylether	400	UJ
86-73-7-----	Fluorene	400	UJ
100-01-6-----	4-Nitroaniline	810	UJ
534-52-1-----	4,6-Dinitro-2-methylphenol	810	U
86-30-6-----	N-Nitrosodiphenylamine (1)	400	UJ
101-55-3-----	4-Bromophenyl-phenylether	400	UJ
118-74-1-----	Hexachlorobenzene	400	UJ
87-86-5-----	Pentachlorophenol	810	U
85-01-8-----	Phenanthrene	400	UJ
120-12-7-----	Anthracene	400	UJ
86-74-8-----	Carbazole	400	UJ
84-74-2-----	Di-n-butylphthalate	400	UJ
206-44-0-----	Fluoranthene	400	UJ
129-00-0-----	Pyrene	400	UJ
85-68-7-----	Butylbenzylphthalate	400	UJ
91-94-1-----	3,3'-Dichlorobenzidine	400	UJ
56-55-3-----	Benzo(a)anthracene	400	UJ
218-01-9-----	Chrysene	400	UJ
117-81-7-----	bis(2-Ethylhexyl)phthalate	400	UJ
117-84-0-----	Di-n-octylphthalate	400	UJ
205-99-2-----	Benzo(b)fluoranthene	400	UJ
207-08-9-----	Benzo(k)fluoranthene	400	UJ
50-32-8-----	Benzo(a)pyrene	400	UJ
193-39-5-----	Indeno(1,2,3-cd)pyrene	400	UJ
53-70-3-----	Dibenzo(a,h)anthracene	400	UJ
191-24-2-----	Benzo(g,h,i)perylene	400	UJ

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED0280330

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-13A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S1D1522

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/21/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N , pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	8.34	880	JB
2.				
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED0280330

Lab Name: MITKEM\_CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: A1489A\_

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-13A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 81.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.16	U	*N	CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation**

Date: 08-Nov-02

CLIENT: GEI Consultants, Inc.

Project: Keyspan

Client Sample ID: SED0280330

Collection Date: 10/09/02 15:00

Lab ID: A1489-13

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
		<b>SM2340_S</b>				
Hardness, Calcium/Magnesium (As CaCO3)	3600		240	mg/Kg CaCO3	1	10/24/02 15:38
<b>SOIL AND WASTE PH</b>						
		<b>SW9045C_S</b>				
pH	7.8		1.0	pH Units	1	10/21/02 0:00

**Qualifiers:**

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

DF - Dilution Factor

Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED029003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-01C

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: V1F0394

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 30

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3-----	Chloromethane	7	U J
75-01-4-----	Vinyl Chloride	7	U
74-83-9-----	Bromomethane	7	U J
75-00-3-----	Chloroethane	7	U J
75-35-4-----	1,1-Dichloroethene	7	U
67-64-1-----	Acetone	22	
75-15-0-----	Carbon Disulfide	2	J
75-09-2-----	Methylene Chloride	3	JB
156-60-5-----	trans-1,2-Dichloroethene	7	U
75-34-3-----	1,1-Dichloroethane	7	U
78-93-3-----	2-Butanone	7	U
156-59-2-----	cis-1,2-Dichloroethene	7	U
67-66-3-----	Chloroform	7	U
71-55-6-----	1,1,1-Trichloroethane	7	U
56-23-5-----	Carbon Tetrachloride	7	U
107-06-2-----	1,2-Dichloroethane	7	U
71-43-2-----	Benzene	7	U
79-01-6-----	Trichloroethene	7	U
78-87-5-----	1,2-Dichloropropane	7	U
75-27-4-----	Bromodichloromethane	7	U
10061-01-5-----	cis-1,3-Dichloropropene	7	U
108-10-1-----	4-Methyl-2-pentanone	7	U
108-88-3-----	Toluene	7	U
10061-02-6-----	trans-1,3-Dichloropropene	7	U
79-00-5-----	1,1,2-Trichloroethane	7	U
127-18-4-----	Tetrachloroethene	7	U
591-78-6-----	2-Hexanone	7	U
124-48-1-----	Dibromochloromethane	7	U
108-90-7-----	Chlorobenzene	7	U
100-41-4-----	Ethylbenzene	7	U
1330-20-7-----	Xylene (Total)	7	U
100-42-5-----	Styrene	7	U
75-25-2-----	Bromoform	7	U
79-34-5-----	1,1,2,2-Tetrachloroethane	7	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED029003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-01C

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: V1F0394

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 30

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1.				
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED029003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-01A

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: S3B9957

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 30 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

108-95-2-----	Phenol	2300	U
111-44-4-----	bis(2-Chloroethyl) Ether	2300	U
95-57-8-----	2-Chlorophenol	2300	U
541-73-1-----	1,3-Dichlorobenzene	2300	U
106-46-7-----	1,4-Dichlorobenzene	2300	U
95-50-1-----	1,2-Dichlorobenzene	2300	U
95-48-7-----	2-Methylphenol	2300	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	2300	U
106-44-5-----	4-Methylphenol	2300	U
621-64-7-----	N-Nitroso-di-n-propylamine	2300	U
67-72-1-----	Hexachloroethane	2300	U
98-95-3-----	Nitrobenzene	2300	U
78-59-1-----	Isophorone	2300	U
88-75-5-----	2-Nitrophenol	2300	U
105-67-9-----	2,4-Dimethylphenol	2300	U
120-83-2-----	2,4-Dichlorophenol	2300	U
120-82-1-----	1,2,4-Trichlorobenzene	2300	U
91-20-3-----	Naphthalene	2300	U
106-47-8-----	4-Chloroaniline	2300	U
111-91-1-----	bis(2-Chloroethoxy) methane	2300	U
87-68-3-----	Hexachlorobutadiene	2300	U
59-50-7-----	4-Chloro-3-Methylphenol	2300	U
91-57-6-----	2-Methylnaphthalene	2300	U
77-47-4-----	Hexachlorocyclopentadiene	2300	U
88-06-2-----	2,4,6-Trichlorophenol	2300	U
95-95-4-----	2,4,5-Trichlorophenol	4800	U
91-58-7-----	2-Chloronaphthalene	2300	U
88-74-4-----	2-Nitroaniline	4800	U
131-11-3-----	Dimethylphthalate	2300	U
208-96-8-----	Acenaphthylene	390	J
606-20-2-----	2,6-Dinitrotoluene	2300	U
99-09-2-----	3-Nitroaniline	4800	U
83-32-9-----	Acenaphthene	2300	U

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED029003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-01A

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: S3B9957

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 30 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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51-28-5-----	2,4-Dinitrophenol	4800	U
100-02-7-----	4-Nitrophenol	4800	U J
132-64-9-----	Dibenzofuran	2300	U
121-14-2-----	2,4-Dinitrotoluene	2300	U
84-66-2-----	Diethylphthalate	2300	U
7005-72-3-----	4-Chlorophenyl-phenylether	2300	U
86-73-7-----	Fluorene	2300	U
100-01-6-----	4-Nitroaniline	4800	U J
534-52-1-----	4,6-Dinitro-2-methylphenol	4800	U
86-30-6-----	N-Nitrosodiphenylamine (1)	2300	U
101-55-3-----	4-Bromophenyl-phenylether	2300	U
118-74-1-----	Hexachlorobenzene	2300	U
87-86-5-----	Pentachlorophenol	4800	U
85-01-8-----	Phenanthrene	580	J
120-12-7-----	Anthracene	370	J
86-74-8-----	Carbazole	2300	U J
84-74-2-----	Di-n-butylphthalate	2300	U
206-44-0-----	Fluoranthene	1600	J
129-00-0-----	Pyrene	3200	
85-68-7-----	Butylbenzylphthalate	2300	U
91-94-1-----	3,3'-Dichlorobenzidine	2300	U
56-55-3-----	Benzo(a)anthracene	1200	J
218-01-9-----	Chrysene	1300	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	240	J
117-84-0-----	Di-n-octylphthalate	400	J
205-99-2-----	Benzo(b)fluoranthene	900	J
207-08-9-----	Benzo(k)fluoranthene	260	J
50-32-8-----	Benzo(a)pyrene	1000	J
193-39-5-----	Indeno(1,2,3-cd)pyrene	470	J
53-70-3-----	Dibenzo(a,h)anthracene	2300	U
191-24-2-----	Benzo(g,h,i)perylene	470	J

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED029003

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-01A

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: S3B9957

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 30 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 8

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	15.94	1100	J
2. 10544-50-0	SULFUR, MOL. (S8)	17.16	28000	NJ
3. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYL)	17.87	9400	NJ
4.	UNKNOWN	21.76	2100	J
5.	UNKNOWN	21.93	5000	J
6.	UNKNOWN	22.10	2700	J
7.	UNKNOWN	22.26	2300	J
8.	UNKNOWN	22.42	2300	J
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED029003

Lab Name: MITKEM CORPORATION Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: A1489A

Matrix (soil/water): SOIL Lab Sample ID: A1489-01A

Level (low/med): MED Date Received: 10/11/02

% Solids: 70.0

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.35	B	J *N	CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation**

Date: 08-Nov-02

CLIENT: GEI Consultants, Inc.  
Client Sample ID: SED029003  
Lab ID: A1489-01

Project: Keyspan  
Collection Date: 10/09/02 12:00

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	85000		260	mg/Kg CaCO3	1	10/24/02 15:38
<b>SOIL AND WASTE PH</b>						
pH	8.4		1.0	pH Units	1	10/16/02 0:00

Qualifiers: ND - Not Detected at the Reporting Limit  
I - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED029033

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-02C

Sample wt/vol: 5.2 (g/mL) G

Lab File ID: V1F0395

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 22

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	Q
74-87-3	Chloromethane	6 UJ
75-01-4	Vinyl Chloride	6 U
74-83-9	Bromomethane	6 UJ
75-00-3	Chloroethane	6 UJ
75-35-4	1,1-Dichloroethene	6 U
67-64-1	Acetone	25
75-15-0	Carbon Disulfide	2 J
75-09-2	Methylene Chloride	3 JB
156-60-5	trans-1,2-Dichloroethene	6 U
75-34-3	1,1-Dichloroethane	6 U
78-93-3	2-Butanone	6 U
156-59-2	cis-1,2-Dichloroethene	6 U
67-66-3	Chloroform	6 U
71-55-6	1,1,1-Trichloroethane	6 U
56-23-5	Carbon Tetrachloride	6 U
107-06-2	1,2-Dichloroethane	6 U
71-43-2	Benzene	6 U
79-01-6	Trichloroethene	6 U
78-87-5	1,2-Dichloropropane	6 U
75-27-4	Bromodichloromethane	6 U
10061-01-5	cis-1,3-Dichloropropene	6 U
108-10-1	4-Methyl-2-pentanone	6 U
108-88-3	Toluene	6 U
10061-02-6	trans-1,3-Dichloropropene	6 U
79-00-5	1,1,2-Trichloroethane	6 U
127-18-4	Tetrachloroethene	6 U
591-78-6	2-Hexanone	6 U
124-48-1	Dibromochloromethane	6 U
108-90-7	Chlorobenzene	6 U
100-41-4	Ethylbenzene	6 U
1330-20-7	Xylene (Total)	6 U
100-42-5	Styrene	6 U
75-25-2	Bromoform	6 U
79-34-5	1,1,2,2-Tetrachloroethane	6 U

FORM I VOA

OLM03.0

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED029033

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-02C

Sample wt/vol: 5.2 (g/mL) G

Lab File ID: V1F0395

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 22

Date Analyzed: 10/14/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED029033

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-02A

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: S3C0242

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 22 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 11/13/02

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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108-95-2-----	Phenol	2100	U
111-44-4-----	bis(2-Chloroethyl) Ether	2100	U
95-57-8-----	2-Chlorophenol	2100	U
541-73-1-----	1,3-Dichlorobenzene	2100	U
106-46-7-----	1,4-Dichlorobenzene	2100	U
95-50-1-----	1,2-Dichlorobenzene	2100	U
95-48-7-----	2-Methylphenol	2100	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	2100	U
106-44-5-----	4-Methylphenol	2100	U
621-64-7-----	N-Nitroso-di-n-propylamine	2100	U
67-72-1-----	Hexachloroethane	2100	U
98-95-3-----	Nitrobenzene	2100	U
78-59-1-----	Isophorone	2100	U
88-75-5-----	2-Nitrophenol	2100	U
105-67-9-----	2,4-Dimethylphenol	2100	U
120-83-2-----	2,4-Dichlorophenol	2100	U
120-82-1-----	1,2,4-Trichlorobenzene	2100	U
91-20-3-----	Naphthalene	2100	U
106-47-8-----	4-Chloroaniline	2100	U
111-91-1-----	bis(2-Chloroethoxy)methane	2100	U
87-68-3-----	Hexachlorobutadiene	2100	U
59-50-7-----	4-Chloro-3-Methylphenol	2100	U
91-57-6-----	2-Methylnaphthalene	2100	U
77-47-4-----	Hexachlorocyclopentadiene	2100	U
88-06-2-----	2,4,6-Trichlorophenol	2100	U
95-95-4-----	2,4,5-Trichlorophenol	4300	U
91-58-7-----	2-Chloronaphthalene	2100	U
88-74-4-----	2-Nitroaniline	4300	U
131-11-3-----	Dimethylphthalate	2100	U
208-96-8-----	Acenaphthylene	430	J
606-20-2-----	2,6-Dinitrotoluene	2100	U
99-09-2-----	3-Nitroaniline	4300	U
83-32-9-----	Acenaphthene	2100	U

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED029033

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-02A

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: S3C0242

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 22 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 11/13/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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51-28-5-----	2,4-Dinitrophenol	4300	U
100-02-7-----	4-Nitrophenol	4300	U
132-64-9-----	Dibenzofuran	2100	U
121-14-2-----	2,4-Dinitrotoluene	2100	U
84-66-2-----	Diethylphthalate	2100	U
7005-72-3-----	4-Chlorophenyl-phenylether	2100	U
86-73-7-----	Fluorene	240	J
100-01-6-----	4-Nitroaniline	4300	U
534-52-1-----	4,6-Dinitro-2-methylphenol	4300	U
86-30-6-----	N-Nitrosodiphenylamine (1)	2100	U
101-55-3-----	4-Bromophenyl-phenylether	2100	U
118-74-1-----	Hexachlorobenzene	2100	U
87-86-5-----	Pentachlorophenol	4300	U
85-01-8-----	Phenanthrene	1700	J
120-12-7-----	Anthracene	590	J
86-74-8-----	Carbazole	2100	U
84-74-2-----	Di-n-butylphthalate	2100	U
206-44-0-----	Fluoranthene	2800	
129-00-0-----	Pyrene	5000	
85-68-7-----	Butylbenzylphthalate	2100	U
91-94-1-----	3,3'-Dichlorobenzidine	2100	U
56-55-3-----	Benzo(a)anthracene	1900	J
218-01-9-----	Chrysene	1800	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	2100	U
117-84-0-----	Di-n-octylphthalate	2100	U
205-99-2-----	Benzo(b)fluoranthene	1400	J
207-08-9-----	Benzo(k)fluoranthene	610	J
50-32-8-----	Benzo(a)pyrene	1500	J
193-39-5-----	Indeno(1,2,3-cd)pyrene	690	J
53-70-3-----	Dibenzo(a,h)anthracene	2100	U
191-24-2-----	Benzo(g,h,i)perylene	740	J

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SED029033

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-02A

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: S3C0242

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 22 decanted: (Y/N) N

Date Extracted: 10/18/02

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 11/13/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 7

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 100-80-1	BENZENE, 1-ETHENYL-3-METHYL-	7.90	1300	NJ
2. 613-12-7	ANTHRACENE, 2-METHYL-	18.30	1100	NJ
3.	UNKNOWN	18.51	1900	J
4. 35465-71-5	2-PHENYLNAPHTHALENE	18.92	1000	NJ
5. 781-43-1	9,10-DIMETHYLANTHRACENE	19.44	1100	NJ
6. 238-84-6	11H-BENZO [A] FLUORENE	20.90	880	NJ
7. 205-82-3	BENZO [J] FLUORANTHENE	25.36	1000	NJ
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SED029033

Lab Name: MITKEM CORPORATION \_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_

SDG No.: A1489A

Matrix (soil/water): SOIL \_\_\_\_\_ Lab Sample ID: A1489-02A \_\_\_\_\_

Level (low/med): MED \_\_\_\_\_ Date Received: 10/11/02 \_\_\_\_\_

% Solids: 78.0 \_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.18	U	*N	CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation****Date:** 08-Nov-02**CLIENT:** GEI Consultants, Inc.  
**Client Sample ID:** SED029033  
**Lab ID:** A1489-02**Project:** Keyspan  
**Collection Date:** 10/09/02 12:10

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	82000		240	mg/Kg CaCO3	1	10/24/02 15:38
<b>SOIL AND WASTE PH</b>						
pH	8.3		1.0	pH Units	1	10/16/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-A

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-30C

Sample wt/vol: 5.2 (g/mL) G

Lab File ID: V1F0450

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 71

Date Analyzed: 10/16/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	-----Chloromethane	16	U
75-01-4	-----Vinyl Chloride	16	U
74-83-9	-----Bromomethane	16	U
75-00-3	-----Chloroethane	16	U
75-35-4	-----1,1-Dichloroethene	16	U
67-64-1	-----Acetone	84	U
75-15-0	-----Carbon Disulfide	16	U
75-09-2	-----Methylene Chloride	11	JB
156-60-5	-----trans-1,2-Dichloroethene	16	U
75-34-3	-----1,1-Dichloroethane	16	U
78-93-3	-----2-Butanone	16	U
156-59-2	-----cis-1,2-Dichloroethene	16	U
67-66-3	-----Chloroform	16	U
71-55-6	-----1,1,1-Trichloroethane	16	U
56-23-5	-----Carbon Tetrachloride	16	U
107-06-2	-----1,2-Dichloroethane	16	U
71-43-2	-----Benzene	16	U
79-01-6	-----Trichloroethene	16	U
78-87-5	-----1,2-Dichloropropane	16	U
75-27-4	-----Bromodichloromethane	16	U
10061-01-5	-----cis-1,3-Dichloropropene	16	U
108-10-1	-----4-Methyl-2-pentanone	16	U
108-88-3	-----Toluene	16	U
10061-02-6	-----trans-1,3-Dichloropropene	16	U
79-00-5	-----1,1,2-Trichloroethane	16	U
127-18-4	-----Tetrachloroethene	16	U
591-78-6	-----2-Hexanone	16	U
124-48-1	-----Dibromochloromethane	16	U
108-90-7	-----Chlorobenzene	16	U
100-41-4	-----Ethylbenzene	16	U
1330-20-7	-----Xylene (Total)	16	U
100-42-5	-----Styrene	16	U
75-25-2	-----Bromoform	16	U
79-34-5	-----1,1,2,2-Tetrachloroethane	16	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPSEDBG-A

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-30C

Sample wt/vol: 5.2 (g/mL) G

Lab File ID: V1F0450

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 71

Date Analyzed: 10/16/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 3

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.99	33	J
2.	UNKNOWN	2.33	69	J
3. 75-18-3	DIMETHYL SULFIDE	3.05	55	NJ
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1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-ARE

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-30CRE

Sample wt/vol: 5.3 (g/mL) G

Lab File ID: V1F0451

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 71

Date Analyzed: 10/16/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

74-87-3-----	Chloromethane	16	UJ
75-01-4-----	Vinyl Chloride	16	UJ
74-83-9-----	Bromomethane	16	UJ
75-00-3-----	Chloroethane	16	UJ
75-35-4-----	1,1-Dichloroethene	16	UJ
67-64-1-----	Acetone	76	J
75-15-0-----	Carbon Disulfide	8	J
75-09-2-----	Methylene Chloride	7	JB
156-60-5-----	trans-1,2-Dichloroethene	16	UJ
75-34-3-----	1,1-Dichloroethane	16	UJ
78-93-3-----	2-Butanone	16	UJ
156-59-2-----	cis-1,2-Dichloroethene	16	UJ
67-66-3-----	Chloroform	16	UJ
71-55-6-----	1,1,1-Trichloroethane	16	UJ
56-23-5-----	Carbon Tetrachloride	16	UJ
107-06-2-----	1,2-Dichloroethane	16	UJ
71-43-2-----	Benzene	16	UJ
79-01-6-----	Trichloroethene	16	UJ
78-87-5-----	1,2-Dichloropropane	16	UJ
75-27-4-----	Bromodichloromethane	16	UJ
10061-01-5-----	cis-1,3-Dichloropropene	16	UJ
108-10-1-----	4-Methyl-2-pentanone	16	UJ
108-88-3-----	Toluene	16	UJ
10061-02-6-----	trans-1,3-Dichloropropene	16	UJ
79-00-5-----	1,1,2-Trichloroethane	16	UJ
127-18-4-----	Tetrachloroethene	16	UJ
591-78-6-----	2-Hexanone	16	UJ
124-48-1-----	Dibromochloromethane	16	UJ
108-90-7-----	Chlorobenzene	16	UJ
100-41-4-----	Ethylbenzene	16	UJ
1330-20-7-----	Xylene (Total)	16	UJ
100-42-5-----	Styrene	16	UJ
75-25-2-----	Bromoform	16	UJ
79-34-5-----	1,1,2,2-Tetrachloroethane	16	UJ

FORM I VOA

OLM03.0

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPSEDBG-ARE

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-30CRE

Sample wt/vol: 5.3 (g/mL) G

Lab File ID: V1F0451

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 71

Date Analyzed: 10/16/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 3

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 74-93-1	METHANETHIOL	1.99	710	NJ
2. 75-18-3	DIMETHYL SULFIDE	3.05	140	NJ
3. 624-92-0	DISULFIDE, DIMETHYL	7.64	30	NJ
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSDBG-A

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-30A

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: S3B9965

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 71 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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108-95-2-----	Phenol	1100	U
111-44-4-----	bis(2-Chloroethyl) Ether	1100	U
95-57-8-----	2-Chlorophenol	1100	U
541-73-1-----	1,3-Dichlorobenzene	1100	U
106-46-7-----	1,4-Dichlorobenzene	1100	U
95-50-1-----	1,2-Dichlorobenzene	1100	U
95-48-7-----	2-Methylphenol	1100	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	1100	U
106-44-5-----	4-Methylphenol	1100	U
621-64-7-----	N-Nitroso-di-n-propylamine	1100	U
67-72-1-----	Hexachloroethane	1100	U
98-95-3-----	Nitrobenzene	1100	U
78-59-1-----	Isophorone	1100	U
88-75-5-----	2-Nitrophenol	1100	U
105-67-9-----	2,4-Dimethylphenol	1100	U
120-83-2-----	2,4-Dichlorophenol	1100	U
120-82-1-----	1,2,4-Trichlorobenzene	1100	U
91-20-3-----	Naphthalene	1100	U
106-47-8-----	4-Chloroaniline	1100	U J
111-91-1-----	bis(2-Chloroethoxy)methane	1100	U
87-68-3-----	Hexachlorobutadiene	1100	U
59-50-7-----	4-Chloro-3-Methylphenol	1100	U
91-57-6-----	2-Methylnaphthalene	1100	U
77-47-4-----	Hexachlorocyclopentadiene	1100	U
88-06-2-----	2,4,6-Trichlorophenol	1100	U
95-95-4-----	2,4,5-Trichlorophenol	2300	U
91-58-7-----	2-Chloronaphthalene	1100	U
88-74-4-----	2-Nitroaniline	2300	U
131-11-3-----	Dimethylphthalate	1100	U
208-96-8-----	Acenaphthylene	140	J
606-20-2-----	2,6-Dinitrotoluene	1100	U
99-09-2-----	3-Nitroaniline	2300	U J
83-32-9-----	Acenaphthene	1100	U

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSDBG-A

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-30A

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: S3B9965

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 71 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	Q
51-28-5	2,4-Dinitrophenol	2300 U
100-02-7	4-Nitrophenol	2300 U J
132-64-9	Dibenzofuran	1100 U
121-14-2	2,4-Dinitrotoluene	1100 U
84-66-2	Diethylphthalate	1100 U
7005-72-3	4-Chlorophenyl-phenylether	1100 U
86-73-7	Fluorene	240 J
100-01-6	4-Nitroaniline	2300 U J
534-52-1	4,6-Dinitro-2-methylphenol	2300 U
86-30-6	N-Nitrosodiphenylamine (1)	1100 U
101-55-3	4-Bromophenyl-phenylether	1100 U
118-74-1	Hexachlorobenzene	1100 U
87-86-5	Pentachlorophenol	2300 U
85-01-8	Phenanthrene	690 J
120-12-7	Anthracene	830 J
86-74-8	Carbazole	190 J
84-74-2	Di-n-butylphthalate	1100 U
206-44-0	Fluoranthene	770 J
129-00-0	Pyrene	1000 J
85-68-7	Butylbenzylphthalate	1100 U
91-94-1	3,3'-Dichlorobenzidine	1100 U
56-55-3	Benzo(a)anthracene	510 J
218-01-9	Chrysene	520 J
117-81-7	bis(2-Ethylhexyl)phthalate	710 J
117-84-0	Di-n-octylphthalate	1100 U
205-99-2	Benzo(b)fluoranthene	450 J
207-08-9	Benzo(k)fluoranthene	170 J
50-32-8	Benzo(a)pyrene	410 J
193-39-5	Indeno(1,2,3-cd)pyrene	190 J
53-70-3	Dibenzo(a,h)anthracene	1100 U
191-24-2	Benzo(g,h,i)perylene	210 J

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPSEDBG-A

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-30A

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: S3B9965

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 71 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 18

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.93	2600	J
2.	UNKNOWN	9.96	1100	J
3.	UNKNOWN	11.04	1000	J
4.	UNKNOWN	14.33	2200	J
5. 544-63-8	TETRADECANOIC ACID	14.45	1800	NJ
6.	UNKNOWN	15.02	2200	J
7.	UNKNOWN	15.10	2300	J
8.	UNKNOWN	16.07	8900	J
9. 57-10-3	HEXADECANOIC ACID	16.24	8800	NJ
10. 10544-50-0	SULFUR, MOL. (S8)	17.20	28000	NJ
11.	UNKNOWN	17.25	12000	J
12.	UNKNOWN	17.40	1000	J
13. 112-80-1	OLEIC ACID	17.64	3700	NJ
14. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	17.91	5100	NJ
15.	UNKNOWN	19.22	2600	J
16. 57-88-5	CHOLESTEROL	23.97	6700	NJ
17.	UNKNOWN	24.05	2300	J
18.	UNKNOWN	24.70	780	J
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-A

Lab Name: MITKEM CORPORATION \_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_

SDG No.: A1489B\_

Matrix (soil/water): SOIL \_\_\_\_\_ Lab Sample ID: A1489-30A \_\_\_\_\_

Level (low/med): MED \_\_\_\_\_ Date Received: 10/11/02 \_\_\_\_\_

% Solids: 29.0 \_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.49	U		CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation**

Date: 08-Nov-02

CLIENT: GEI Consultants, Inc.

Project: Keyspan

Client Sample ID: RPSEDBG-A

Collection Date: 10/09/02 18:45

Lab ID: A1489-30

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO <sub>3</sub> )	72000		660	mg/Kg CaCO <sub>3</sub>	1	10/24/02 12:26
<b>SOIL AND WASTE PH</b>						
pH	7.9		1.0	pH Units	1	10/21/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-B

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-29C

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: V1F0449

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 23

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (mL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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74-87-3-----	Chloromethane	6	U
75-01-4-----	Vinyl Chloride	6	U
74-83-9-----	Bromomethane	6	U
75-00-3-----	Chloroethane	6	U
75-35-4-----	1,1-Dichloroethene	6	U
67-64-1-----	Acetone	6	U
75-15-0-----	Carbon Disulfide	6	U
75-09-2-----	Methylene Chloride	2	JB
156-60-5-----	trans-1,2-Dichloroethene	6	U
75-34-3-----	1,1-Dichloroethane	6	U
78-93-3-----	2-Butanone	6	U
156-59-2-----	cis-1,2-Dichloroethene	6	U
67-66-3-----	Chloroform	6	U
71-55-6-----	1,1,1-Trichloroethane	6	U
56-23-5-----	Carbon Tetrachloride	6	U
107-06-2-----	1,2-Dichloroethane	6	U
71-43-2-----	Benzene	6	U
79-01-6-----	Trichloroethene	6	U
78-87-5-----	1,2-Dichloropropane	6	U
75-27-4-----	Bromodichloromethane	6	U
10061-01-5-----	cis-1,3-Dichloropropene	6	U
108-10-1-----	4-Methyl-2-pentanone	6	U
108-88-3-----	Toluene	6	U
10061-02-6-----	trans-1,3-Dichloropropene	6	U
79-00-5-----	1,1,2-Trichloroethane	6	U
127-18-4-----	Tetrachloroethene	6	U
591-78-6-----	2-Hexanone	6	U
124-48-1-----	Dibromochloromethane	6	U
108-90-7-----	Chlorobenzene	6	U
100-41-4-----	Ethylbenzene	6	U
1330-20-7-----	Xylene (Total)	6	U
100-42-5-----	Styrene	6	U
75-25-2-----	Bromoform	6	U
79-34-5-----	1,1,2,2-Tetrachloroethane	6	U

FORM I VOA

OLM03.0

99.

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPSEDBG-B

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-29C

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: V1F0449

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 23

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-B

Lab Name: MITKEM CORPORATION Contract:  
Lab Code: MITKEM Case No.: SAS No.: SDG No.: A1489  
Matrix: (soil/water) SOIL Lab Sample ID: A1489-29A  
Sample wt/vol: 30.6 (g/mL) G Lab File ID: S3B9964  
Level: (low/med) LOW Date Received: 10/11/02  
% Moisture: 23 decanted: (Y/N) N Date Extracted: 10/15/02  
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/24/02  
Injection Volume: 1.0 (uL) Dilution Factor: 1.0  
GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl) Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-oxybis(1-Chloropropane)	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-di-n-propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U J
111-91-1	bis(2-Chloroethoxy) methane	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	850	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	850	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U
99-09-2	3-Nitroaniline	850	U J
83-32-9	Acenaphthene	420	U

FORM I SV-1

OLM03.0

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-B

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-29A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9964

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 23

decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	Q
51-28-5-----	2,4-Dinitrophenol	850 U
100-02-7-----	4-Nitrophenol	850 U J
132-64-9-----	Dibenzofuran	420 U
121-14-2-----	2,4-Dinitrotoluene	420 U
84-66-2-----	Diethylphthalate	420 U
7005-72-3-----	4-Chlorophenyl-phenylether	420 U
86-73-7-----	Fluorene	420 U
100-01-6-----	4-Nitroaniline	850 U J
534-52-1-----	4,6-Dinitro-2-methylphenol	850 U
86-30-6-----	N-Nitrosodiphenylamine (1)	420 U
101-55-3-----	4-Bromophenyl-phenylether	420 U
118-74-1-----	Hexachlorobenzene	420 U
87-86-5-----	Pentachlorophenol	850 U
85-01-8-----	Phenanthrene	420 U
120-12-7-----	Anthracene	420 U
86-74-8-----	Carbazole	420 U J
84-74-2-----	Di-n-butylphthalate	420 U
206-44-0-----	Fluoranthene	420 U
129-00-0-----	Pyrene	420 U
85-68-7-----	Butylbenzylphthalate	420 U
91-94-1-----	3,3'-Dichlorobenzidine	420 U
56-55-3-----	Benzo (a) anthracene	420 U
218-01-9-----	Chrysene	420 U
117-81-7-----	bis(2-Ethylhexyl)phthalate	47 J
117-84-0-----	Di-n-octylphthalate	420 U
205-99-2-----	Benzo (b) fluoranthene	420 U
207-08-9-----	Benzo (k) fluoranthene	420 U
50-32-8-----	Benzo (a) pyrene	420 U
193-39-5-----	Indeno (1,2,3-cd) pyrene	420 U
53-70-3-----	Dibenzo (a,h) anthracene	420 U
191-24-2-----	Benzo (g,h,i) perylene	420 U

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPSEDEG-B

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-29A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9964

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 23 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 10/24/02

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

Number TICs found: 11

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.93	180	J
2.	UNKNOWN	12.25	240	J
3.	UNKNOWN	14.99	420	J
4.	UNKNOWN	15.06	220	J
5.	UNKNOWN	16.03	1000	J
6. 57-10-3	HEXADECANOIC ACID	16.19	800	NJ
7. 7704-34-9	SULFUR	17.20	10000	NJ
8. 112-80-1	OLEIC ACID	17.61	450	NJ
9. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYL)	17.89	1400	NJ
10.	UNKNOWN	19.20	260	J
11. 57-88-5	CHOLESTEROL	23.99	640	NJ
12.				
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-B

Lab Name: MITKEM CORPORATION \_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_

SDG No.: A1489B\_

Matrix (soil/water): SOIL \_\_\_\_\_ Lab Sample ID: A1489-29A \_\_\_\_\_

Level (low/med): MED \_\_\_\_\_ Date Received: 10/11/02 \_\_\_\_\_

% Solids: 77.0 \_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.18	U		CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation****Date:** 08-Nov-02**CLIENT:** GEI Consultants, Inc.**Project:** Keyspan**Client Sample ID:** RPSEDBG-B**Collection Date:** 10/09/02 18:35**Lab ID:** A1489-29

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO <sub>3</sub> )	31000		260	mg/Kg CaCO <sub>3</sub>	1	10/24/02 12:26
<b>SOIL AND WASTE PH</b>						
pH	8.1		1.0	pH Units	1	10/21/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-C

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-28C

Sample wt/vol: 5.1 (g/mL) G

Lab File ID: V1F0448

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 29

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
74-87-3	-----Chloromethane	7	U	
75-01-4	-----Vinyl Chloride	7	U	
74-83-9	-----Bromomethane	7	U	
75-00-3	-----Chloroethane	7	U	
75-35-4	-----1,1-Dichloroethene	7	U	
67-64-1	-----Acetone	7	U	
75-15-0	-----Carbon Disulfide	7	U	
75-09-2	-----Methylene Chloride	4	JB	
156-60-5	-----trans-1,2-Dichloroethene	7	U	
75-34-3	-----1,1-Dichloroethane	7	U	
78-93-3	-----2-Butanone	7	U	
156-59-2	-----cis-1,2-Dichloroethene	7	U	
67-66-3	-----Chloroform	7	U	
71-55-6	-----1,1,1-Trichloroethane	7	U	
56-23-5	-----Carbon Tetrachloride	7	U	
107-06-2	-----1,2-Dichloroethane	7	U	
71-43-2	-----Benzene	7	U	
79-01-6	-----Trichloroethene	7	U	
78-87-5	-----1,2-Dichloropropane	7	U	
75-27-4	-----Bromodichloromethane	7	U	
10061-01-5	-----cis-1,3-Dichloropropene	7	U	
108-10-1	-----4-Methyl-2-pentanone	7	U	
108-88-3	-----Toluene	7	U	
10061-02-6	-----trans-1,3-Dichloropropene	7	U	
79-00-5	-----1,1,2-Trichloroethane	7	U	
127-18-4	-----Tetrachloroethene	7	U	
591-78-6	-----2-Hexanone	7	U	
124-48-1	-----Dibromochloromethane	7	U	
108-90-7	-----Chlorobenzene	7	U	
100-41-4	-----Ethylbenzene	7	U	
1330-20-7	-----Xylene (Total)	7	U	
100-42-5	-----Styrene	7	U	
75-25-2	-----Bromoform	7	U	
79-34-5	-----1,1,2,2-Tetrachloroethane	7	U	

FORM I VOA

OLM03.0

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPSEDBG-C

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-28C

Sample wt/vol: 5.1 (g/mL) G

Lab File ID: V1F0448

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 29

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1.				
2.				
3.				
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-C

Lab Name: MITKEM CORPORATION      Contract: \_\_\_\_\_

Lab Code: MITKEM      Case No.: \_\_\_\_\_      SAS No.: \_\_\_\_\_      SDG No.: A1489

Matrix: (soil/water) SOIL      Lab Sample ID: A1489-28A

Sample wt/vol:      30.6 (g/mL) G      Lab File ID:      S3B9866

Level:      (low/med)      LOW      Date Received: 10/11/02

% Moisture: 29      decanted: (Y/N) N      Date Extracted: 10/15/02

Concentrated Extract Volume:      1000 (uL)      Date Analyzed: 10/17/02

Injection Volume:      1.0 (uL)      Dilution Factor: 1.0

GPC Cleanup:      (Y/N) N      pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG      Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2-----	Phenol	460	U
111-44-4-----	bis(2-Chloroethyl)Ether	460	U
95-57-8-----	2-Chlorophenol	460	U
541-73-1-----	1,3-Dichlorobenzene	460	U
106-46-7-----	1,4-Dichlorobenzene	460	U
95-50-1-----	1,2-Dichlorobenzene	460	U
95-48-7-----	2-Methylphenol	460	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	460	U
106-44-5-----	4-Methylphenol	460	U
621-64-7-----	N-Nitroso-di-n-propylamine	460	U
67-72-1-----	Hexachloroethane	460	U
98-95-3-----	Nitrobenzene	460	U
78-59-1-----	Isophorone	460	U
88-75-5-----	2-Nitrophenol	460	U
105-67-9-----	2,4-Dimethylphenol	460	U
120-83-2-----	2,4-Dichlorophenol	460	U
120-82-1-----	1,2,4-Trichlorobenzene	460	U
91-20-3-----	Naphthalene	460	U
106-47-8-----	4-Chloroaniline	460	U
111-91-1-----	bis(2-Chloroethoxy)methane	460	U
87-68-3-----	Hexachlorobutadiene	460	U
59-50-7-----	4-Chloro-3-Methylphenol	460	U
91-57-6-----	2-Methylnaphthalene	460	U
77-47-4-----	Hexachlorocyclopentadiene	460	U
88-06-2-----	2,4,6-Trichlorophenol	460	U
95-95-4-----	2,4,5-Trichlorophenol	920	U
91-58-7-----	2-Chloronaphthalene	460	U
88-74-4-----	2-Nitroaniline	920	U
131-11-3-----	Dimethylphthalate	460	U
208-96-8-----	Acenaphthylene	460	U
606-20-2-----	2,6-Dinitrotoluene	460	U
99-09-2-----	3-Nitroaniline	920	U
83-32-9-----	Acenaphthene	460	U

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-C

Lab Name: MITKEM CORPORATION      Contract: \_\_\_\_\_

Lab Code: MITKEM      Case No.: \_\_\_\_\_      SAS No.: \_\_\_\_\_      SDG No.: A1489

Matrix: (soil/water) SOIL      Lab Sample ID: A1489-28A

Sample wt/vol:      30.6 (g/mL) G      Lab File ID:      S3B9866

Level:      (low/med)      LOW      Date Received: 10/11/02

% Moisture: 29      decanted: (Y/N) N      Date Extracted: 10/15/02

Concentrated Extract Volume:      1000(uL)      Date Analyzed: 10/17/02

Injection Volume:      1.0(uL)      Dilution Factor: 1.0

GPC Cleanup:      (Y/N) N      pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG      Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5-----	2,4-Dinitrophenol	920	U
100-02-7-----	4-Nitrophenol	920	U
132-64-9-----	Dibenzofuran	460	U
121-14-2-----	2,4-Dinitrotoluene	460	U
84-66-2-----	Diethylphthalate	460	U
7005-72-3-----	4-Chlorophenyl-phenylether	460	U
86-73-7-----	Fluorene	460	U
100-01-6-----	4-Nitroaniline	920	U
534-52-1-----	4,6-Dinitro-2-methylphenol	920	U
86-30-6-----	N-Nitrosodiphenylamine (1)	460	U
101-55-3-----	4-Bromophenyl-phenylether	460	U
118-74-1-----	Hexachlorobenzene	460	U
87-86-5-----	Pentachlorophenol	920	U
85-01-8-----	Phenanthrene	460	U
120-12-7-----	Anthracene	460	U
86-74-8-----	Carbazole	460	U
84-74-2-----	Di-n-butylphthalate	460	U
206-44-0-----	Fluoranthene	100	J
129-00-0-----	Pyrene	230	J
85-68-7-----	Butylbenzylphthalate	460	U
91-94-1-----	3,3'-Dichlorobenzidine	460	U
56-55-3-----	Benzo(a)anthracene	100	J
218-01-9-----	Chrysene	100	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	54	J
117-84-0-----	Di-n-octylphthalate	460	U
205-99-2-----	Benzo(b)fluoranthene	65	J
207-08-9-----	Benzo(k)fluoranthene	460	U
50-32-8-----	Benzo(a)pyrene	84	J
193-39-5-----	Indeno(1,2,3-cd)pyrene	460	U
53-70-3-----	Dibenzo(a,h)anthracene	460	U
191-24-2-----	Benzo(g,h,i)perylene	460	U

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPSEDBG-C

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-28A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9866

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 29 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 8

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.34	700	JB
2. 85-44-9	PHTHALIC ANHYDRIDE	10.69	200	NJ
3. 2091-29-4	9-HEXADECENOIC ACID	16.82	800	NJ
4. 57-10-3	HEXADECANOIC ACID	16.98	500	NJ
5. 10544-50-0	SULFUR, MOL. (S8)	18.15	3900	NJ
6. 301-02-0	9-OCTADECENAMIDE, (Z) -	20.04	360	NJ
7.	UNKNOWN	22.76	240	J
8.	UNKNOWN	25.55	480	J
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## INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-C

Lab Name: MITKEM CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_

SDG No.: A1489B\_

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-28A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 71.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.17	U		CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation**

Date: 08-Nov-02

CLIENT: GEI Consultants, Inc.

Project: Keyspan

Client Sample ID: RPSEDBG-C

Collection Date: 10/09/02 18:20

Lab ID: A1489-28

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	44000	SM2340_S	260	mg/Kg CaCO3	1	10/24/02 12:26
<b>SOIL AND WASTE PH</b>						
pH	8.0	SW9045C_S	1.0	pH Units	1	10/21/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-D

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-27C

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: V1F0447

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 32

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	-----Chloromethane	7	U
75-01-4	-----Vinyl Chloride	7	U
74-83-9	-----Bromomethane	7	U
75-00-3	-----Chloroethane	7	U
75-35-4	-----1,1-Dichloroethene	7	U
67-64-1	-----Acetone	52	
75-15-0	-----Carbon Disulfide	3	J
75-09-2	-----Methylene Chloride	3	JB
156-60-5	-----trans-1,2-Dichloroethene	7	U
75-34-3	-----1,1-Dichloroethane	7	U
78-93-3	-----2-Butanone	7	U
156-59-2	-----cis-1,2-Dichloroethene	7	U
67-66-3	-----Chloroform	7	U
71-55-6	-----1,1,1-Trichloroethane	7	U
56-23-5	-----Carbon Tetrachloride	7	U
107-06-2	-----1,2-Dichloroethane	7	U
71-43-2	-----Benzene	7	U
79-01-6	-----Trichloroethene	7	U
78-87-5	-----1,2-Dichloropropane	7	U
75-27-4	-----Bromodichloromethane	7	U
10061-01-5	-----cis-1,3-Dichloropropene	7	U
108-10-1	-----4-Methyl-2-pentanone	7	U
108-88-3	-----Toluene	7	U
10061-02-6	-----trans-1,3-Dichloropropene	7	U
79-00-5	-----1,1,2-Trichloroethane	7	U
127-18-4	-----Tetrachloroethene	7	U
591-78-6	-----2-Hexanone	7	U
124-48-1	-----Dibromochloromethane	7	U
108-90-7	-----Chlorobenzene	7	U
100-41-4	-----Ethylbenzene	7	U
1330-20-7	-----Xylene (Total)	7	U
100-42-5	-----Styrene	7	U
75-25-2	-----Bromoform	7	U
79-34-5	-----1,1,2,2-Tetrachloroethane	7	U



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPSEDBG-D

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-27C

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: V1F0447

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 32

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 1

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 526-73-8	BENZENE, 1,2,3-TRIMETHYL-	11.75	8	NJ
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSDBG-D

Lab Name: MITKEM CORPORATION Contract:  
Lab Code: MITKEM Case No.: SAS No.: SDG No.: A1489  
Matrix: (soil/water) SOIL Lab Sample ID: A1489-27A  
Sample wt/vol: 30.5 (g/mL) G Lab File ID: S3B9865  
Level: (low/med) LOW Date Received: 10/11/02  
% Moisture: 32 decanted: (Y/N) N Date Extracted: 10/15/02  
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/17/02  
Injection Volume: 1.0 (uL) Dilution Factor: 1.0  
GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

108-95-2-----	Phenol	480	U
111-44-4-----	bis(2-Chloroethyl) Ether	480	U
95-57-8-----	2-Chlorophenol	480	U
541-73-1-----	1,3-Dichlorobenzene	480	U
106-46-7-----	1,4-Dichlorobenzene	480	U
95-50-1-----	1,2-Dichlorobenzene	480	U
95-48-7-----	2-Methylphenol	480	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	480	U
106-44-5-----	4-Methylphenol	480	U
621-64-7-----	N-Nitroso-di-n-propylamine	480	U
67-72-1-----	Hexachloroethane	480	U
98-95-3-----	Nitrobenzene	480	U
78-59-1-----	Isophorone	480	U
88-75-5-----	2-Nitrophenol	480	U
105-67-9-----	2,4-Dimethylphenol	480	U
120-83-2-----	2,4-Dichlorophenol	480	U
120-82-1-----	1,2,4-Trichlorobenzene	480	U
91-20-3-----	Naphthalene	78	J
106-47-8-----	4-Chloroaniline	480	U
111-91-1-----	bis(2-Chloroethoxy)methane	480	U
87-68-3-----	Hexachlorobutadiene	480	U
59-50-7-----	4-Chloro-3-Methylphenol	480	U
91-57-6-----	2-Methylnaphthalene	480	U
77-47-4-----	Hexachlorocyclopentadiene	480	U
88-06-2-----	2,4,6-Trichlorophenol	480	U
95-95-4-----	2,4,5-Trichlorophenol	970	U
91-58-7-----	2-Chloronaphthalene	480	U
88-74-4-----	2-Nitroaniline	970	U
131-11-3-----	Dimethylphthalate	480	U
208-96-8-----	Acenaphthylene	160	J
606-20-2-----	2,6-Dinitrotoluene	480	U
99-09-2-----	3-Nitroaniline	970	U
83-32-9-----	Acenaphthene	480	U

FORM I SV-1

OLM03.0

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSDBG-D

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-27A

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: S3B9865

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 32 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

51-28-5-----	2,4-Dinitrophenol	970	U
100-02-7-----	4-Nitrophenol	970	U
132-64-9-----	Dibenzofuran	480	U
121-14-2-----	2,4-Dinitrotoluene	480	U
84-66-2-----	Diethylphthalate	480	U
7005-72-3-----	4-Chlorophenyl-phenylether	480	U
86-73-7-----	Fluorene	120	J
100-01-6-----	4-Nitroaniline	970	U
534-52-1-----	4,6-Dinitro-2-methylphenol	970	U
86-30-6-----	N-Nitrosodiphenylamine (1)	480	U
101-55-3-----	4-Bromophenyl-phenylether	480	U
118-74-1-----	Hexachlorobenzene	480	U
87-86-5-----	Pentachlorophenol	970	U
85-01-8-----	Phenanthrene	560	
120-12-7-----	Anthracene	660	
86-74-8-----	Carbazole	88	J
84-74-2-----	Di-n-butylphthalate	480	U
206-44-0-----	Fluoranthene	770	
129-00-0-----	Pyrene	1400	
85-68-7-----	Butylbenzylphthalate	150	J
91-94-1-----	3,3'-Dichlorobenzidine	480	U
56-55-3-----	Benzo(a)anthracene	630	
218-01-9-----	Chrysene	650	
117-81-7-----	bis(2-Ethylhexyl)phthalate	240	J
117-84-0-----	Di-n-octylphthalate	480	U
205-99-2-----	Benzo(b)fluoranthene	450	J
207-08-9-----	Benzo(k)fluoranthene	190	J
50-32-8-----	Benzo(a)pyrene	520	
193-39-5-----	Indeno(1,2,3-cd)pyrene	280	J
53-70-3-----	Dibenzo(a,h)anthracene	71	J
191-24-2-----	Benzo(g,h,i)perylene	290	J

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPSEDBG-D

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-27A

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: S3B9865

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 32 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 16

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.34	720	JB
2.	UNKNOWN	6.66	610	J
3.	UNKNOWN	11.83	370	J
4.	UNKNOWN	15.24	420	J
5.	UNKNOWN	15.85	320	J
6.	2531-84-2 PHENANTHRENE, 2-METHYL-	16.64	360	NJ
7.	613-12-7 ANTHRACENE, 2-METHYL-	16.69	330	NJ
8.	UNKNOWN	16.82	720	J
9.	57-10-3 HEXADECANOIC ACID	16.98	820	NJ
10.	238-84-6 11H-BENZO [A] FLUORENE	19.19	290	NJ
11.	UNKNOWN	19.33	250	J
12.	3442-78-2 PYRENE, 2-METHYL-	19.39	220	NJ
13.	301-02-0 9-OCTADECENAMIDE, (Z) -	20.05	530	NJ
14.	198-55-0 PERYLENE	23.41	310	NJ
15.	UNKNOWN	25.26	320	J
16.	UNKNOWN	25.36	490	J
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-D

Lab Name: MITKEM\_CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_

SDG No.: A1489B\_

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-27A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 68.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.21	U		CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

**Mitkem Corporation**

Date: 08-Nov-02

CLIENT: GEI Consultants, Inc.

Project: Keyspan

Client Sample ID: RPSEDBG-D

Collection Date: 10/09/02 18:10

Lab ID: A1489-27

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	150000	SM2340_S	280	mg/Kg CaCO3	1	10/24/02 12:26
<b>SOIL AND WASTE PH</b>						
pH	8.0	SW9045C_S	1.0	pH Units	1	10/21/02 0:00

**Qualifiers:**

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

DF - Dilution Factor

Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-E

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-26C

Sample wt/vol: 5.2 (g/mL) G

Lab File ID: V1F0467

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 22

Date Analyzed: 10/16/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/KG	
74-87-3	-----Chloromethane	6	U	
75-01-4	-----Vinyl Chloride	6	U	
74-83-9	-----Bromomethane	6	U	
75-00-3	-----Chloroethane	6	U	
75-35-4	-----1,1-Dichloroethene	6	U	
67-64-1	-----Acetone	6	U	
75-15-0	-----Carbon Disulfide	6	U	
75-09-2	-----Methylene Chloride	4	J	
156-60-5	-----trans-1,2-Dichloroethene	6	U	
75-34-3	-----1,1-Dichloroethane	6	U	
78-93-3	-----2-Butanone	6	U	
156-59-2	-----cis-1,2-Dichloroethene	6	U	
67-66-3	-----Chloroform	6	U	
71-55-6	-----1,1,1-Trichloroethane	6	U	
56-23-5	-----Carbon Tetrachloride	6	U	
107-06-2	-----1,2-Dichloroethane	6	U	
71-43-2	-----Benzene	6	U	
79-01-6	-----Trichloroethene	6	U	
78-87-5	-----1,2-Dichloropropane	6	U	
75-27-4	-----Bromodichloromethane	6	U	
10061-01-5	-----cis-1,3-Dichloropropene	6	U	
108-10-1	-----4-Methyl-2-pentanone	6	U	
108-88-3	-----Toluene	6	U	
10061-02-6	-----trans-1,3-Dichloropropene	6	U	
79-00-5	-----1,1,2-Trichloroethane	6	U	
127-18-4	-----Tetrachloroethene	6	U	
591-78-6	-----2-Hexanone	6	U	
124-48-1	-----Dibromochloromethane	6	U	
108-90-7	-----Chlorobenzene	6	U	
100-41-4	-----Ethylbenzene	6	U	
1330-20-7	-----Xylene (Total)	6	U	
100-42-5	-----Styrene	6	U	
75-25-2	-----Bromoform	6	U	
79-34-5	-----1,1,2,2-Tetrachloroethane	6	U	

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPSDEBG-E

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-26C

Sample wt/vol: 5.2 (g/mL) G

Lab File ID: V1F0467

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 22

Date Analyzed: 10/16/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 1

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 83-32-9	ACENAPHTHENE	18.35	10	NJ
2.				
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSDBG-E

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-26A

Sample wt/vol: 30.8 (g/mL) G

Lab File ID: S3B9864

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 22 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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108-95-2-----	Phenol	410	U
111-44-4-----	bis(2-Chloroethyl) Ether	410	U
95-57-8-----	2-Chlorophenol	410	U
541-73-1-----	1,3-Dichlorobenzene	410	U
106-46-7-----	1,4-Dichlorobenzene	410	U
95-50-1-----	1,2-Dichlorobenzene	410	U
95-48-7-----	2-Methylphenol	410	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	410	U
106-44-5-----	4-Methylphenol	410	U
621-64-7-----	N-Nitroso-di-n-propylamine	410	U
67-72-1-----	Hexachloroethane	410	U
98-95-3-----	Nitrobenzene	410	U
78-59-1-----	Isophorone	410	U
88-75-5-----	2-Nitrophenol	410	U
105-67-9-----	2,4-Dimethylphenol	410	U
120-83-2-----	2,4-Dichlorophenol	410	U
120-82-1-----	1,2,4-Trichlorobenzene	410	U
91-20-3-----	Naphthalene	410	U
106-47-8-----	4-Chloroaniline	410	U
111-91-1-----	bis(2-Chloroethoxy) methane	410	U
87-68-3-----	Hexachlorobutadiene	410	U
59-50-7-----	4-Chloro-3-Methylphenol	410	U
91-57-6-----	2-Methylnaphthalene	410	U
77-47-4-----	Hexachlorocyclopentadiene	410	U
88-06-2-----	2,4,6-Trichlorophenol	410	U
95-95-4-----	2,4,5-Trichlorophenol	840	U
91-58-7-----	2-Chloronaphthalene	410	U
88-74-4-----	2-Nitroaniline	840	U
131-11-3-----	Dimethylphthalate	410	U
208-96-8-----	Acenaphthylene	410	U
606-20-2-----	2,6-Dinitrotoluene	410	U
99-09-2-----	3-Nitroaniline	840	U
83-32-9-----	Acenaphthene	410	U

FORM I SV-1

OLM03.0

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-E

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-26A

Sample wt/vol: 30.8 (g/mL) G

Lab File ID: S3B9864

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 22 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

51-28-5-----	2,4-Dinitrophenol	840	U
100-02-7-----	4-Nitrophenol	840	U
132-64-9-----	Dibenzofuran	410	U
121-14-2-----	2,4-Dinitrotoluene	410	U
84-66-2-----	Diethylphthalate	410	U
7005-72-3-----	4-Chlorophenyl-phenylether	410	U
86-73-7-----	Fluorene	410	U
100-01-6-----	4-Nitroaniline	840	U
534-52-1-----	4,6-Dinitro-2-methylphenol	840	U
86-30-6-----	N-Nitrosodiphenylamine (1)	410	U
101-55-3-----	4-Bromophenyl-phenylether	410	U
118-74-1-----	Hexachlorobenzene	410	U
87-86-5-----	Pentachlorophenol	840	U
85-01-8-----	Phenanthrene	410	U
120-12-7-----	Anthracene	410	U
86-74-8-----	Carbazole	410	U
84-74-2-----	Di-n-butylphthalate	410	U
206-44-0-----	Fluoranthene	410	U
129-00-0-----	Pyrene	410	U
85-68-7-----	Butylbenzylphthalate	410	U
91-94-1-----	3,3'-Dichlorobenzidine	410	U
56-55-3-----	Benzo(a)anthracene	410	U
218-01-9-----	Chrysene	410	U
117-81-7-----	bis(2-Ethylhexyl) phthalate	410	U
117-84-0-----	Di-n-octylphthalate	410	U
205-99-2-----	Benzo(b)fluoranthene	410	U
207-08-9-----	Benzo(k)fluoranthene	410	U
50-32-8-----	Benzo(a)pyrene	410	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	410	U
53-70-3-----	Dibenzo(a,h)anthracene	410	U
191-24-2-----	Benzo(g,h,i)perylene	410	U

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

RPA SAMPLE NO.

RPSEDBG-E

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-26A

Sample wt/vol: 30.8 (g/mL) G

Lab File ID: S3B9864

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 22 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 4

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.33	450	JB
2. 10544-50-0	SULFUR, MOL. (S8)	18.10	1600	NJ
3. 301-02-0	9-OCTADECENAMIDE, (Z) -	20.04	340	NJ
4.	UNKNOWN	22.76	270	J
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-E

Lab Name: MITKEM\_CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_

SDG No.: A1489B\_

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-26A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 78.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.16	U		CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation****Date:** 08-Nov-02**CLIENT:** GEI Consultants, Inc.**Project:** Keyspan**Client Sample ID:** RPSEDBG-E**Collection Date:** 10/09/02 18:20**Lab ID:** A1489-26

<b>Analyses</b>	<b>Result</b>	<b>Qual</b>	<b>Limit</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	6400	SM2340_S	220	mg/Kg CaCO3	1	10/24/02 12:26
<b>SOIL AND WASTE PH</b>						
pH	7.8	SW9045C_S	1.0	pH Units	1	10/21/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-F

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-25C

Sample wt/vol: 5.3 (g/mL) G

Lab File ID: V1F0445

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 21

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

74-87-3-----	Chloromethane	6 U	
75-01-4-----	Vinyl Chloride	6 U	
74-83-9-----	Bromomethane	6 U	
75-00-3-----	Chloroethane	6 U	
75-35-4-----	1,1-Dichloroethene	6 U	
67-64-1-----	Acetone	6 U	
75-15-0-----	Carbon Disulfide	6 U	
75-09-2-----	Methylene Chloride	2 JB	
156-60-5-----	trans-1,2-Dichloroethene	6 U	
75-34-3-----	1,1-Dichloroethane	6 U	
78-93-3-----	2-Butanone	6 U	
156-59-2-----	cis-1,2-Dichloroethene	6 U	
67-66-3-----	Chloroform	6 U	
71-55-6-----	1,1,1-Trichloroethane	6 U	
56-23-5-----	Carbon Tetrachloride	6 U	
107-06-2-----	1,2-Dichloroethane	6 U	
71-43-2-----	Benzene	6 U	
79-01-6-----	Trichloroethene	6 U	
78-87-5-----	1,2-Dichloropropane	6 U	
75-27-4-----	Bromodichloromethane	6 U	
10061-01-5-----	cis-1,3-Dichloropropene	6 U	
108-10-1-----	4-Methyl-2-pentanone	6 U	
108-88-3-----	Toluene	6 U	
10061-02-6-----	trans-1,3-Dichloropropene	6 U	
79-00-5-----	1,1,2-Trichloroethane	6 U	
127-18-4-----	Tetrachloroethene	6 U	
591-78-6-----	2-Hexanone	6 U	
124-48-1-----	Dibromochloromethane	6 U	
108-90-7-----	Chlorobenzene	6 U	
100-41-4-----	Ethylbenzene	8	
1330-20-7-----	Xylene (Total)	6 U	
100-42-5-----	Styrene	6 U	
75-25-2-----	Bromoform	6 U	
79-34-5-----	1,1,2,2-Tetrachloroethane	6 U	

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPSÉDBG-F

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-25C

Sample wt/vol: 5.3 (g/mL) G

Lab File ID: V1F0445

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 21

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 1

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1. 75-18-3	DIMETHYL SULFIDE	3.05	11	NJ
2.				
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-F

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-25A

Sample wt/vol: 30.9 (g/mL) G

Lab File ID: S3B9863

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 21 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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108-95-2-----	Phenol	400	U
111-44-4-----	bis(2-Chloroethyl) Ether	400	U
95-57-8-----	2-Chlorophenol	400	U
541-73-1-----	1,3-Dichlorobenzene	400	U
106-46-7-----	1,4-Dichlorobenzene	400	U
95-50-1-----	1,2-Dichlorobenzene	400	U
95-48-7-----	2-Methylphenol	400	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	400	U
106-44-5-----	4-Methylphenol	400	U
621-64-7-----	N-Nitroso-di-n-propylamine	400	U
67-72-1-----	Hexachloroethane	400	U
98-95-3-----	Nitrobenzene	400	U
78-59-1-----	Isophorone	400	U
88-75-5-----	2-Nitrophenol	400	U
105-67-9-----	2,4-Dimethylphenol	400	U
120-83-2-----	2,4-Dichlorophenol	400	U
120-82-1-----	1,2,4-Trichlorobenzene	400	U
91-20-3-----	Naphthalene	400	U
106-47-8-----	4-Chloroaniline	400	U
111-91-1-----	bis(2-Chloroethoxy) methane	400	U
87-68-3-----	Hexachlorobutadiene	400	U
59-50-7-----	4-Chloro-3-Methylphenol	400	U
91-57-6-----	2-Methylnaphthalene	400	U
77-47-4-----	Hexachlorocyclopentadiene	400	U
88-06-2-----	2,4,6-Trichlorophenol	400	U
95-95-4-----	2,4,5-Trichlorophenol	820	U
91-58-7-----	2-Chloronaphthalene	400	U
88-74-4-----	2-Nitroaniline	820	U
131-11-3-----	Dimethylphthalate	400	U
208-96-8-----	Acenaphthylene	400	U
606-20-2-----	2,6-Dinitrotoluene	400	U
99-09-2-----	3-Nitroaniline	820	U
83-32-9-----	Acenaphthene	400	U

FORM I SV-1

OLM03.0



1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-F

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-25A

Sample wt/vol: 30.9 (g/mL) G

Lab File ID: S3B9863

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 21 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

51-28-5-----	2,4-Dinitrophenol	820	U
100-02-7-----	4-Nitrophenol	820	U
132-64-9-----	Dibenzofuran	400	U
121-14-2-----	2,4-Dinitrotoluene	400	U
84-66-2-----	Diethylphthalate	400	U
7005-72-3-----	4-Chlorophenyl-phenylether	400	U
86-73-7-----	Fluorene	400	U
100-01-6-----	4-Nitroaniline	820	U
534-52-1-----	4,6-Dinitro-2-methylphenol	820	U
86-30-6-----	N-Nitrosodiphenylamine (1)	400	U
101-55-3-----	4-Bromophenyl-phenylether	400	U
118-74-1-----	Hexachlorobenzene	400	U
87-86-5-----	Pentachlorophenol	820	U
85-01-8-----	Phenanthrene	400	U
120-12-7-----	Anthracene	400	U
86-74-8-----	Carbazole	400	U
84-74-2-----	Di-n-butylphthalate	400	U
206-44-0-----	Fluoranthene	400	U
129-00-0-----	Pyrene	400	U
85-68-7-----	Butylbenzylphthalate	400	U
91-94-1-----	3,3'-Dichlorobenzidine	400	U
56-55-3-----	Benzo(a)anthracene	400	U
218-01-9-----	Chrysene	400	U
117-81-7-----	bis(2-Ethylhexyl)phthalate	44	J
117-84-0-----	Di-n-octylphthalate	400	U
205-99-2-----	Benzo(b)fluoranthene	400	U
207-08-9-----	Benzo(k)fluoranthene	400	U
50-32-8-----	Benzo(a)pyrene	400	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	400	U
53-70-3-----	Dibenzo(a,h)anthracene	400	U
191-24-2-----	Benzo(g,h,i)perylene	400	U

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPSEDBG-F

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-25A

Sample wt/vol: 30.9 (g/mL) G

Lab File ID: S3B9863

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 21 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 6

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.34	830	JB
2.	UNKNOWN	16.81	330	J
3. 57-10-3	HEXADECANOIC ACID	16.97	340	NJ
4. 10544-50-0	SULFUR, MOL. (S8)	18.11	2000	NJ
5.	UNKNOWN	20.04	710	J
6.	UNKNOWN	22.76	360	J
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-F

Lab Name: MITKEM\_CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: A1489B\_

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-25A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 79.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.18	U		CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation****Date:** 08-Nov-02**CLIENT:** GEI Consultants, Inc.**Project:** Keyspan**Client Sample ID:** RPSEDBG-F**Collection Date:** 10/09/02 17:45**Lab ID:** A1489-25

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	11000		230	mg/Kg CaCO3	1	10/24/02 12:26
<b>SOIL AND WASTE PH</b>						
pH	7.8		1.0	pH Units	1	10/21/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-G

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-24C

Sample wt/vol: 5.3 (g/mL) G

Lab File ID: V1F0466

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 24

Date Analyzed: 10/16/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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74-87-3-----	Chloromethane	6	U
75-01-4-----	Vinyl Chloride	6	U
74-83-9-----	Bromomethane	6	U
75-00-3-----	Chloroethane	6	U
75-35-4-----	1,1-Dichloroethene	6	U
67-64-1-----	Acetone	8	
75-15-0-----	Carbon Disulfide	6	U
75-09-2-----	Methylene Chloride	2	J
156-60-5-----	trans-1,2-Dichloroethene	6	U
75-34-3-----	1,1-Dichloroethane	6	U
78-93-3-----	2-Butanone	6	U
156-59-2-----	cis-1,2-Dichloroethene	6	U
67-66-3-----	Chloroform	6	U
71-55-6-----	1,1,1-Trichloroethane	6	U
56-23-5-----	Carbon Tetrachloride	6	U
107-06-2-----	1,2-Dichloroethane	6	U
71-43-2-----	Benzene	6	U
79-01-6-----	Trichloroethene	6	U
78-87-5-----	1,2-Dichloropropane	6	U
75-27-4-----	Bromodichloromethane	6	U
10061-01-5-----	cis-1,3-Dichloropropene	6	U
108-10-1-----	4-Methyl-2-pentanone	6	U
108-88-3-----	Toluene	6	U
10061-02-6-----	trans-1,3-Dichloropropene	6	U
79-00-5-----	1,1,2-Trichloroethane	6	U
127-18-4-----	Tetrachloroethene	6	U
591-78-6-----	2-Hexanone	6	U
124-48-1-----	Dibromochloromethane	6	U
108-90-7-----	Chlorobenzene	6	U
100-41-4-----	Ethylbenzene	6	U
1330-20-7-----	Xylene (Total)	6	U
100-42-5-----	Styrene	6	U
75-25-2-----	Bromoform	6	U
79-34-5-----	1,1,2,2-Tetrachloroethane	6	U

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPSEDBG-G

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-24C

Sample wt/vol: 5.3 (g/mL) G

Lab File ID: V1F0466

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 24

Date Analyzed: 10/16/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 5

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 90-12-0	NAPHTHALENE, 1-METHYL-	16.61	55	NJ
2. 581-42-0	NAPHTHALENE, 2,6-DIMETHYL-	17.47	10	NJ
3. 575-37-1	NAPHTHALENE, 1,7-DIMETHYL-	17.63	27	NJ
4. 573-98-8	NAPHTHALENE, 1,2-DIMETHYL-	17.87	12	NJ
5. 83-32-9	ACENAPHTHENE	18.34	62	NJ
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-G

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-24A

Sample wt/vol: 30.7 (g/mL) G

Lab File ID: S3B9862

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 24 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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108-95-2-----	Phenol	420	U
111-44-4-----	bis(2-Chloroethyl) Ether	420	U
95-57-8-----	2-Chlorophenol	420	U
541-73-1-----	1,3-Dichlorobenzene	420	U
106-46-7-----	1,4-Dichlorobenzene	420	U
95-50-1-----	1,2-Dichlorobenzene	420	U
95-48-7-----	2-Methylphenol	420	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	420	U
106-44-5-----	4-Methylphenol	420	U
621-64-7-----	N-Nitroso-di-n-propylamine	420	U
67-72-1-----	Hexachloroethane	420	U
98-95-3-----	Nitrobenzene	420	U
78-59-1-----	Isophorone	420	U
88-75-5-----	2-Nitrophenol	420	U
105-67-9-----	2,4-Dimethylphenol	420	U
120-83-2-----	2,4-Dichlorophenol	420	U
120-82-1-----	1,2,4-Trichlorobenzene	420	U
91-20-3-----	Naphthalene	420	U
106-47-8-----	4-Chloroaniline	420	U
111-91-1-----	bis(2-Chloroethoxy) methane	420	U
87-68-3-----	Hexachlorobutadiene	420	U
59-50-7-----	4-Chloro-3-Methylphenol	420	U
91-57-6-----	2-Methylnaphthalene	420	U
77-47-4-----	Hexachlorocyclopentadiene	420	U
88-06-2-----	2,4,6-Trichlorophenol	420	U
95-95-4-----	2,4,5-Trichlorophenol	860	U
91-58-7-----	2-Chloronaphthalene	420	U
88-74-4-----	2-Nitroaniline	860	U
131-11-3-----	Dimethylphthalate	420	U
208-96-8-----	Acenaphthylene	86	J
606-20-2-----	2,6-Dinitrotoluene	420	U
99-09-2-----	3-Nitroaniline	860	U
83-32-9-----	Acenaphthene	420	U

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-G

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-24A

Sample wt/vol: 30.7 (g/mL) G

Lab File ID: S3B9862

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 24 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

51-28-5-----	2,4-Dinitrophenol	860	U
100-02-7-----	4-Nitrophenol	860	U
132-64-9-----	Dibenzofuran	420	U
121-14-2-----	2,4-Dinitrotoluene	420	U
84-66-2-----	Diethylphthalate	420	U
7005-72-3-----	4-Chlorophenyl-phenylether	420	U
86-73-7-----	Fluorene	420	U
100-01-6-----	4-Nitroaniline	860	U
534-52-1-----	4,6-Dinitro-2-methylphenol	860	U
86-30-6-----	N-Nitrosodiphenylamine (1)	420	U
101-55-3-----	4-Bromophenyl-phenylether	420	U
118-74-1-----	Hexachlorobenzene	420	U
87-86-5-----	Pentachlorophenol	860	U
85-01-8-----	Phenanthrene	270	J
120-12-7-----	Anthracene	80	J
86-74-8-----	Carbazole	420	U
84-74-2-----	Di-n-butylphthalate	420	U
206-44-0-----	Fluoranthene	420	J
129-00-0-----	Pyrene	760	
85-68-7-----	Butylbenzylphthalate	420	U
91-94-1-----	3,3'-Dichlorobenzidine	420	U
56-55-3-----	Benzo (a) anthracene	300	J
218-01-9-----	Chrysene	360	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	330	J
117-84-0-----	Di-n-octylphthalate	420	U
205-99-2-----	Benzo (b) fluoranthene	220	J
207-08-9-----	Benzo (k) fluoranthene	86	J
50-32-8-----	Benzo (a) pyrene	270	J
193-39-5-----	Indeno (1,2,3-cd) pyrene	130	J
53-70-3-----	Dibenzo (a,h) anthracene	420	U
191-24-2-----	Benzo (g,h,i) perylene	140	J

(1) - Cannot be separated from Diphenylamine



1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPSDBG-G

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-24A

Sample wt/vol: 30.7 (g/mL) G

Lab File ID: S3B9862

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 24 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

Number TICs found: 10

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.34	710	JB
2. 2531-84-2	PHENANTHRENE, 2-METHYL-	16.64	190	NJ
3.	UNKNOWN	16.81	250	J
4.	UNKNOWN	16.84	210	J
5.	UNKNOWN	16.97	220	J
6. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYL)	18.74	470	NJ
7.	UNKNOWN	20.04	330	J
8.	UNKNOWN	21.74	180	J
9. 192-97-2	BENZO[E] PYRENE	23.41	250	NJ
10. 57-88-5	CHOLESTEROL	25.30	560	NJ
11.				
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1  
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-G

Lab Name: MITKEM\_CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: A1489B\_

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-24A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 76.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.20	U		CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation****Date:** 08-Nov-02**CLIENT:** GEI Consultants, Inc.**Project:** Keyspan**Client Sample ID:** RPSEDBG-G**Collection Date:** 10/09/02 17:20**Lab ID:** A1489-24

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO <sub>3</sub> )	210000	SM2340_S	220	mg/Kg CaCO <sub>3</sub>	1	10/24/02 12:26
<b>SOIL AND WASTE PH</b>						
pH	8.0	SW9045C_S	1.0	pH Units	1	10/21/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-H

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-23C

Sample wt/vol: 5.1 (g/mL) G

Lab File ID: V1F0443

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 19

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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74-87-3-----	Chloromethane	6 U	
75-01-4-----	Vinyl Chloride	6 U	
74-83-9-----	Bromomethane	6 U	
75-00-3-----	Chloroethane	6 U	
75-35-4-----	1,1-Dichloroethene	6 U	
67-64-1-----	Acetone	6 U	
75-15-0-----	Carbon Disulfide	6 U	
75-09-2-----	Methylene Chloride	3 JB	
156-60-5-----	trans-1,2-Dichloroethene	6 U	
75-34-3-----	1,1-Dichloroethane	6 U	
78-93-3-----	2-Butanone	6 U	
156-59-2-----	cis-1,2-Dichloroethene	6 U	
67-66-3-----	Chloroform	6 U	
71-55-6-----	1,1,1-Trichloroethane	6 U	
56-23-5-----	Carbon Tetrachloride	6 U	
107-06-2-----	1,2-Dichloroethane	6 U	
71-43-2-----	Benzene	6 U	
79-01-6-----	Trichloroethene	6 U	
78-87-5-----	1,2-Dichloropropane	6 U	
75-27-4-----	Bromodichloromethane	6 U	
10061-01-5-----	cis-1,3-Dichloropropene	6 U	
108-10-1-----	4-Methyl-2-pentanone	6 U	
108-88-3-----	Toluene	6 U	
10061-02-6-----	trans-1,3-Dichloropropene	6 U	
79-00-5-----	1,1,2-Trichloroethane	6 U	
127-18-4-----	Tetrachloroethene	6 U	
591-78-6-----	2-Hexanone	6 U	
124-48-1-----	Dibromochloromethane	6 U	
108-90-7-----	Chlorobenzene	6 U	
100-41-4-----	Ethylbenzene	6 U	
1330-20-7-----	Xylene (Total)	6 U	
100-42-5-----	Styrene	6 U	
75-25-2-----	Bromoform	6 U	
79-34-5-----	1,1,2,2-Tetrachloroethane	6 U	

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPSEDBG-H

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-23C

Sample wt/vol: 5.1 (g/mL) G

Lab File ID: V1F0443

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: not dec. 19

Date Analyzed: 10/15/02

GC Column: DB-624 ID: 0.25 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (mL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 1

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 75-18-3	DIMETHYL SULFIDE	3.05	19	NJ
2.				
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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSDBG-H

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-23A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9861

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2-----	Phenol	400 U	
111-44-4-----	bis(2-Chloroethyl) Ether	400 U	
95-57-8-----	2-Chlorophenol	400 U	
541-73-1-----	1,3-Dichlorobenzene	400 U	
106-46-7-----	1,4-Dichlorobenzene	400 U	
95-50-1-----	1,2-Dichlorobenzene	400 U	
95-48-7-----	2-Methylphenol	400 U	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	400 U	
106-44-5-----	4-Methylphenol	400 U	
621-64-7-----	N-Nitroso-di-n-propylamine	400 U	
67-72-1-----	Hexachloroethane	400 U	
98-95-3-----	Nitrobenzene	400 U	
78-59-1-----	Isophorone	400 U	
88-75-5-----	2-Nitrophenol	400 U	
105-67-9-----	2,4-Dimethylphenol	400 U	
120-83-2-----	2,4-Dichlorophenol	400 U	
120-82-1-----	1,2,4-Trichlorobenzene	400 U	
91-20-3-----	Naphthalene	400 U	
106-47-8-----	4-Chloroaniline	400 U	
111-91-1-----	bis(2-Chloroethoxy)methane	400 U	
87-68-3-----	Hexachlorobutadiene	400 U	
59-50-7-----	4-Chloro-3-Methylphenol	400 U	
91-57-6-----	2-Methylnaphthalene	400 U	
77-47-4-----	Hexachlorocyclopentadiene	400 U	
88-06-2-----	2,4,6-Trichlorophenol	400 U	
95-95-4-----	2,4,5-Trichlorophenol	810 U	
91-58-7-----	2-Chloronaphthalene	400 U	
88-74-4-----	2-Nitroaniline	810 U	
131-11-3-----	Dimethylphthalate	400 U	
208-96-8-----	Acenaphthylene	48 J	
606-20-2-----	2,6-Dinitrotoluene	400 U	
99-09-2-----	3-Nitroaniline	810 U	
83-32-9-----	Acenaphthene	400 U	

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSEDBG-H

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-23A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9861

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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51-28-5-----	2,4-Dinitrophenol	810	U
100-02-7-----	4-Nitrophenol	810	U
132-64-9-----	Dibenzofuran	400	U
121-14-2-----	2,4-Dinitrotoluene	400	U
84-66-2-----	Diethylphthalate	400	U
7005-72-3-----	4-Chlorophenyl-phenylether	400	U
86-73-7-----	Fluorene	400	U
100-01-6-----	4-Nitroaniline	810	U
534-52-1-----	4,6-Dinitro-2-methylphenol	810	U
86-30-6-----	N-Nitrosodiphenylamine (1)	400	U
101-55-3-----	4-Bromophenyl-phenylether	400	U
118-74-1-----	Hexachlorobenzene	400	U
87-86-5-----	Pentachlorophenol	810	U
85-01-8-----	Phenanthrene	160	J
120-12-7-----	Anthracene	59	J
86-74-8-----	Carbazole	400	U
84-74-2-----	Di-n-butylphthalate	400	U
206-44-0-----	Fluoranthene	310	J
129-00-0-----	Pyrene	430	
85-68-7-----	Butylbenzylphthalate	400	U
91-94-1-----	3,3'-Dichlorobenzidine	400	U
56-55-3-----	Benzo(a)anthracene	220	J
218-01-9-----	Chrysene	220	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	400	U
117-84-0-----	Di-n-octylphthalate	400	U
205-99-2-----	Benzo(b)fluoranthene	200	J
207-08-9-----	Benzo(k)fluoranthene	78	J
50-32-8-----	Benzo(a)pyrene	190	J
193-39-5-----	Indeno(1,2,3-cd)pyrene	110	J
53-70-3-----	Dibenzo(a,h)anthracene	400	U
191-24-2-----	Benzo(g,h,i)perylene	120	J

(1) - Cannot be separated from Diphenylamine

1F  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RPSEDBG-H

Lab Name: MITKEM CORPORATION

Contract:

Lab Code: MITKEM

Case No.:

SAS No.:

SDG No.: A1489

Matrix: (soil/water) SOIL

Lab Sample ID: A1489-23A

Sample wt/vol: 30.6 (g/mL) G

Lab File ID: S3B9861

Level: (low/med) LOW

Date Received: 10/11/02

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 10/15/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/17/02

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: \_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/Kg

Number TICs found: 8

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.34	560	JB
2.	UNKNOWN	16.81	170	J
3.	UNKNOWN	16.97	230	J
4. 80-05-7	PHENOL, 4,4'-(1-METHYLETHYL)	18.74	2200	NJ
5.	UNKNOWN	20.05	340	J
6.	UNKNOWN	22.76	200	J
7. 57-88-5	CHOLESTEROL	25.28	820	NJ
8.	UNKNOWN	25.69	170	J
9.				
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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

RPSDBG-H

Lab Name: MITKEM\_CORPORATION\_\_\_\_\_ Contract: \_\_\_\_\_

Lab Code: MITKEM Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_

SDG No.: A1489B\_

Matrix (soil/water): SOIL\_\_\_\_\_ Lab Sample ID: A1489-23A\_\_\_\_\_

Level (low/med): MED\_\_\_\_\_ Date Received: 10/11/02\_\_\_\_\_

% Solids: 81.0\_\_\_\_\_

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	0.17	U		CA

Color Before: \_\_\_\_\_ Clarity Before: \_\_\_\_\_ Texture: \_\_\_\_\_

Color After: \_\_\_\_\_ Clarity After: \_\_\_\_\_ Artifacts: \_\_\_\_\_

Comments:

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**Mitkem Corporation****Date:** 08-Nov-02

**CLIENT:** GEI Consultants, Inc.  
**Client Sample ID:** RPSEDBG-H  
**Lab ID:** A1489-23

**Project:** Keyspan  
**Collection Date:** 10/09/02 17:05

Analyses	Result	Qual	Limit	Units	DF	Date Analyzed
<b>HARDNESS BY CALCULATION</b>						
Hardness, Calcium/Magnesium (As CaCO3)	39000		210	mg/Kg CaCO3	1	10/24/02 12:26
<b>SOIL AND WASTE PH</b>						
pH	8.0		1.0	pH Units	1	10/21/02 0:00

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Limit - Reporting Limit

R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

Mitek Corporation

Date Received: 10/17/02

Work Order # 0210-13710

Approved by: 

R.I. Analytical

Sample #: 001

SAMPLE DESCRIPTION: A1489-01B GRAB 10/09/02 @1200

RPSED02-9 (0-0.3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	1.6	0.1	%	ASTM D-2974-87	10/18/02 15:30	EC
SIEVE ANALYSIS	*			ASTM	10/21/02 9:30	EC

Sieve - \* See Attached

Sample #: 002

SAMPLE DESCRIPTION: A1489-02B GRAB 10/09/02 @1210

RPSED02-9 (0.3-3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	1.4	0.1	%	ASTM D-2974-87	10/18/02 15:30	EC
SIEVE ANALYSIS	*			ASTM	10/21/02 10:05	EC

Sieve - \* See Attached

Sample #: 003

SAMPLE DESCRIPTION: A1489-03B GRAB 10/09/02 @1130

RPSED02-6 (0-0.3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	3.4	0.1	%	ASTM D-2974-87	10/18/02 15:30	EC
SIEVE ANALYSIS	*			ASTM	10/21/02 11:00	EC

Sieve - \* See Attached

R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

Mitek Corporation

Date Received: 10/17/02

Work Order # 0210-13710

Approved by:

R.I. Analytical

Sample #: 004

SAMPLE DESCRIPTION: A1489-04B GRAB 10/09/02 @1135

RPSED02-6(0.3-1A)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	1.5	0.1	%	ASTM D-2974-87	10/18/02 15:30	EC
SIEVE ANALYSIS	*			ASTM	10/21/02 12:05	EC

Sieve - \* See Attached

Sample #: 005

SAMPLE DESCRIPTION: A1489-05B GRAB 10/09/02 @1140

RPSED02-6(1.9-2.4)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	0.2	0.1	%	ASTM D-2974-87	10/18/02 15:30	EC

Sample #: 006

SAMPLE DESCRIPTION: A1489-07B GRAB 10/09/02 @1100

RPSED02-3(0-0.3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	1.2	0.1	%	ASTM D-2974-87	10/18/02 15:30	EC
SIEVE ANALYSIS	*			ASTM	10/21/02 15:15	EC

Sieve - \* See Attached

Sample #: 007

SAMPLE DESCRIPTION: A1489-08B GRAB 10/09/02 @1110

RPSED02(0.3-3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	3.5	0.1	%	ASTM D-2974-87	10/18/02 15:30	EC
SIEVE ANALYSIS	*			ASTM	10/21/02 18:50	KLL

Sieve - \* See Attached

2202

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## CERTIFICATE OF ANALYSIS

Mitekem Corporation

Date Received: 10/17/02

Work Order # 0210-13710

Approved by:

R.I. Analytical

Sample #: 008

SAMPLE DESCRIPTION: A1489-09B GRAB 10/09/02 @1025

RPSED02-2(0-0.3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	2.6	0.1	%	ASTM D-2974-87	10/18/02 15:30	EC
SIEVE ANALYSIS	*			ASTM	10/22/02 15:15	KLL

Sieve - \* See Attached

Sample #: 009

SAMPLE DESCRIPTION: A1489-10B GRAB 10/09/02 @1035

RPSED02-2(0.3-3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	3.3	0.1	%	ASTM D-2974-87	10/18/02 15:30	EC
SIEVE ANALYSIS	*			ASTM	10/22/02 16:00	KLL

Sieve - \* See Attached

Sample #: 010

SAMPLE DESCRIPTION: A1489-12B GRAB 10/09/02 @1450

RPSED02-8(0-0.3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	0.3	0.1	%	ASTM D-2974-87	10/18/02 15:30	EC
SIEVE ANALYSIS	*			ASTM	10/22/02 17:00	KLL

Sieve - \* See Attached

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Date Received: 10/17/02

Work Order # 0210-13710

Approved by:

R.I. Analytical

Sample #: 011

SAMPLE DESCRIPTION: A1489-13B GRAB 10/09/02 @1500

RPSE002-8(0.3-3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	0.1	0.1	%	ASTM D-2974-87	10/18/02 15:30	EC
SIEVE ANALYSIS	*			ASTM	10/22/02 20:45	KLL

Sieve - \* See Attached

Sample #: 012

SAMPLE DESCRIPTION: A1489-14B GRAB 10/09/02 @1515

RPSE002-7(0.0.3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	0.3	0.1	%	ASTM D-2974-87	10/21/02 17:40	KLL
SIEVE ANALYSIS	*			ASTM	10/22/02 18:25	KLL

Sieve - \* See Attached

Sample #: 013

SAMPLE DESCRIPTION: A1489-15B GRAB 10/09/02 @1520

RPSE002-7(0.3-3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	0.3	0.1	%	ASTM D-2974-87	10/21/02 17:40	KLL
SIEVE ANALYSIS	*			ASTM	10/22/02 21:30	KLL

Sieve - \* See Attached

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Date Received: 10/17/02

Work Order # 0210-13710

Approved by:

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Sample #: 014

SAMPLE DESCRIPTION: A1489-16B GRAB 10/09/02 @1540

RPSED02-5 (0-0.3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	0.6	0.1	%	ASTM D-2974-87	10/21/02 17:40	KLL
SIEVE ANALYSIS	*			ASTM	10/22/02 22:10	KLL

Sieve - \* See Attached

Sample #: 015

SAMPLE DESCRIPTION: A1489-17B GRAB 10/09/02 @1545

RPSEP02-5 (0.3-3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	0.1	0.1	%	ASTM D-2974-87	10/21/02 17:40	KLL
SIEVE ANALYSIS	*			ASTM	10/22/02 22:40	KLL

Sieve - \* See Attached

Sample #: 016

SAMPLE DESCRIPTION: A1489-18B GRAB 10/09/02 @1605

RPSED02-4 (0-0.3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	0.3	0.1	%	ASTM D-2974-87	10/21/02 17:40	KLL
SIEVE ANALYSIS	*			ASTM	10/23/02 9:00	CCP

Sieve - \* See Attached

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## CERTIFICATE OF ANALYSIS

Mitek Corporation

Date Received: 10/17/02

Work Order # 0210-13710

Approved by: \_\_\_\_\_

R.I. Analytical

Sample #: 017

SAMPLE DESCRIPTION: A1489-19B GRAB 10/09/02 @1610

RPSEP02-4(0.3-3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	0.2	0.1	%	ASTM D-2974-87	10/21/02 17:40	KLL
SIEVE ANALYSIS	*			ASTM	10/23/02 10:30	CCP

Sieve - \* See Attached

Sample #: 018

SAMPLE DESCRIPTION: A1489-20B GRAB 10/09/02 @1630

RPSEP02-1(0.-0.3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	0.3	0.1	%	ASTM D-2974-87	10/21/02 17:40	KLL
SIEVE ANALYSIS	*			ASTM	10/23/02 12:30	CCP

Sieve - \* See Attached

Sample #: 019

SAMPLE DESCRIPTION: A1489-21B GRAB 10/09/02 @1635

RPSEP02-1(0.3-3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	0.1	0.1	%	ASTM D-2974-87	10/21/02 17:40	KLL
SIEVE ANALYSIS	*			ASTM	10/23/02 13:15	CCP

Sieve - \* See Attached



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Date Received: 10/17/02

Work Order # 0210-13710

Approved by:

R.I. Analytical

Sample #: 020

SAMPLE DESCRIPTION: A1489-22B GRAB 10/09/02 @1535

RPSEDXX100902  
(DUP) RPSED02-1(0.3-3)

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	0.2	0.1	%	ASTM D-2974-87	10/21/02 17:40	KLL
SIEVE ANALYSIS	*			ASTM	10/23/02 13:30	CCP

Sieve - \* See Attached

Sample #: 021

SAMPLE DESCRIPTION: A1489-23B GRAB 10/09/02 @1705

RPSED BG - H

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	0.5	0.1	%	ASTM D-2974-87	10/21/02 17:40	KLL
SIEVE ANALYSIS	*			ASTM	10/23/02 16:50	KLL

Sieve - \* See Attached

Sample #: 022

SAMPLE DESCRIPTION: A1489-24B GRAB 10/09/02 @1720

RPSED BG - G

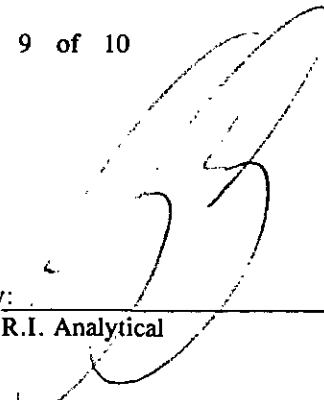
PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	1.3	0.1	%	ASTM D-2974-87	10/21/02 17:40	KLL
SIEVE ANALYSIS	*			ASTM	10/23/02 17:30	KLL

Sieve - \* See Attached

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Mitkem Corporation  
Date Received: 10/17/02  
Work Order # 0210-13710

Approved by:   
R.I. Analytical

Sample #: 023

SAMPLE DESCRIPTION: A1489-25B GRAB 10/09/02 @1745

RPSED BG-F

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	0.6	0.1	%	ASTM D-2974-87	10/21/02 17:40	KLL
SIEVE ANALYSIS	*			ASTM	10/23/02 18:15	KLL

Sieve - \* See Attached

Sample #: 024

SAMPLE DESCRIPTION: A1489-26B GRAB 10/09/02 @1820

RPSED BG-E

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	<0.1	0.1	%	ASTM D-2974-87	10/21/02 17:40	KLL
SIEVE ANALYSIS	*			ASTM	10/23/02 18:50	KLL

Sieve - \* See Attached

Sample #: 025

SAMPLE DESCRIPTION: A1489-27B GRAB 10/09/02 @1810

RPSED BG-D

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	5.3	0.1	%	ASTM D-2974-87	10/21/02 17:40	KLL
SIEVE ANALYSIS	*			ASTM	10/23/02 20:20	KLL

Sieve - \* See Attached

R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

Mitekem Corporation

Date Received: 10/17/02

Work Order # 0210-13710

Approved by: \_\_\_\_\_

R.I. Analytical

Sample #: 026

SAMPLE DESCRIPTION: A1489-28B GRAB 10/09/02 @1820

RPSED BG - C

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	0.9	0.1	%	ASTM D-2974-87	10/21/02 17:40	KLL
SIEVE ANALYSIS	*			ASTM	10/23/02 20:55	KLL

Sieve - \* See Attached

Sample #: 027

SAMPLE DESCRIPTION: A1489-29B GRAB 10/09/02 @1835

RPSED BG - B

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	0.8	0.1	%	ASTM D-2974-87	10/21/02 17:40	KLL
SIEVE ANALYSIS	*			ASTM	10/23/02 21:35	KLL

Sieve - \* See Attached

Sample #: 028

SAMPLE DESCRIPTION: A1489-30B GRAB 10/09/02 @1845

RPSED BG - A

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	ANALYZED DATE/TIME	ANALYST
ORGANIC CONTENT	18	0.1	%	ASTM D-2974-87	10/21/02 17:40	KLL
SIEVE ANALYSIS	*			ASTM	10/23/02 21:50	KLL

Sieve - \* See Attached

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Mitkem Corporation  
Work Order No. 0210-13710  
Date Received: 10/17/02

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R.I. Analytical

Sample #: 018 A1489-20B GRAB 10/09/02 @16:30

**Sieve Analysis – Method ASTM D422**

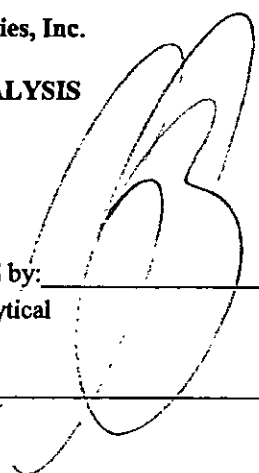
<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	10.00	90.00
No. 10	8.37	81.63
No. 20	9.45	72.18
No. 40	14.91	57.27
No. 60	35.56	21.71
No. 140	20.07	1.64
No. 200	1.02	0.62

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Work Order No. 0210-13710  
Date Received: 10/17/02

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R.I. Analytical



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Sample #: 019 A1489-21B GRAB 10/09/02 @16:35

**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	1.22	98.78
No. 10	1.18	97.60
No. 20	1.86	95.74
No. 40	6.44	89.30
No. 60	49.05	40.25
No. 140	39.14	1.11
No. 200	0.92	0.19

RPSEDXX 100902 (DUP)  
RPSED02-1(0.3-3)

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Date Received: 10/17/02

Approved by: \_\_\_\_\_  
R.I. Analytical

Sample #: 020 A1489-22B GRAB 10/09/02 @15:35

**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	0.65	99.35
No. 10	1.10	98.25
No. 20	2.18	96.07
No. 40	6.46	89.61
No. 60	52.85	36.76
No. 140	35.54	1.22
No. 200	1.05	0.17

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Work Order No. 0210-13710  
Date Received: 10/17/02

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R.I. Analytical

Sample #: 008 A1489-09B GRAB 10/09/02 @10:25

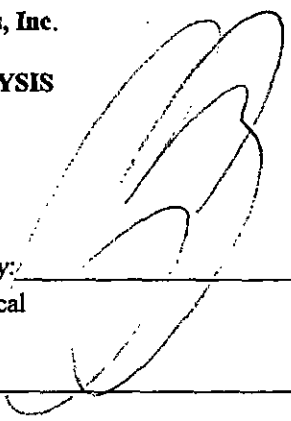
**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	21.59	78.41
No. 10	15.34	63.07
No. 20	12.93	50.14
No. 40	9.12	41.02
No. 60	14.76	26.26
No. 140	20.38	5.88
No. 200	2.79	3.09

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Work Order No. 0210-13710  
Date Received: 10/17/02

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Sample #: 009 A1489-10B GRAB 10/09/02 @10:35

**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	3.55	96.45
No. 10	3.63	92.82
No. 20	4.94	87.88
No. 40	12.85	75.03
No. 60	38.65	36.38
No. 140	33.76	2.62
No. 200	1.42	1.20

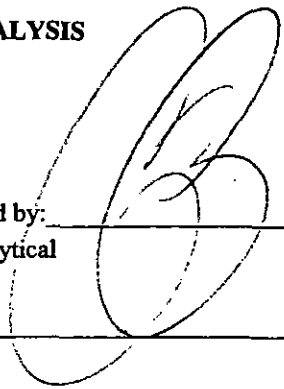


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Work Order No. 0210-13710  
Date Received: 10/17/02

Approved by: \_\_\_\_\_  
R.I. Analytical



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Sample #: 006 A1489-07B GRAB 10/09/02 @11:00

**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	10.23	89.77
No. 10	12.86	76.91
No. 20	13.01	63.90
No. 40	11.79	52.11
No. 60	19.98	32.13
No. 140	29.60	2.53
No. 200	1.30	1.23

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Work Order No. 0210-13710  
Date Received: 10/17/02

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R.I. Analytical

Sample #: 007 A1489-08B GRAB 10/09/02 @11:10

**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	5.62	94.38
No. 10	11.13	83.25
No. 20	11.36	71.89
No. 40	18.74	53.15
No. 60	28.73	24.42
No. 140	20.88	3.54
No. 200	1.64	1.90

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R.I. Analytical

Sample #: 016 A1489-18B GRAB 10/09/02 @16:05

**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	8.62	91.38
No. 10	11.90	79.48
No. 20	8.58	70.90
No. 40	13.14	57.76
No. 60	40.50	17.26
No. 140	14.01	3.25
No. 200	0.50	2.75

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Work Order No. 0210-13710  
Date Received: 10/17/02

Approved by: \_\_\_\_\_  
R.I. Analytical

Sample #: 017 A1489-19B GRAB 10/09/02 @16:10

**Sieve Analysis – Method ASTM D422**

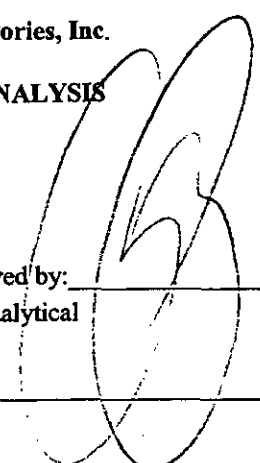
<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	0.51	99.49
No. 10	2.60	96.89
No. 20	3.41	93.48
No. 40	11.42	82.06
No. 60	47.77	34.29
No. 140	33.65	0.64
No. 200	0.44	0.20

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Work Order No. 0210-13710  
Date Received: 10/17/02

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R.I. Analytical



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Sample #: 014 A1489-16B GRAB 10/09/02 @15:40

**Sieve Analysis – Method ASTM D422**

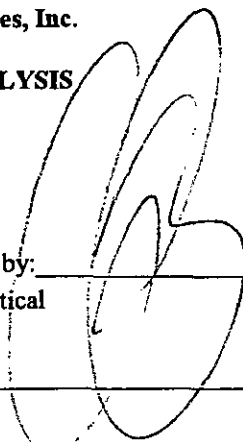
<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	1.08	98.92
No. 10	5.08	93.84
No. 20	10.73	83.11
No. 40	15.79	67.32
No. 60	34.93	32.39
No. 140	29.64	2.75
No. 200	1.47	1.28

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Work Order No. 0210-13710  
Date Received: 10/17/02

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R.I. Analytical



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Sample #: 015 A1489-17B GRAB 10/09/02 @15:45

**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	9.96	90.04
No. 10	3.69	86.35
No. 20	9.08	77.27
No. 40	18.85	58.42
No. 60	32.29	26.13
No. 140	25.14	0.99
No. 200	0.72	0.27

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Work Order No. 0210-13710  
Date Received: 10/17/02

Approved by: \_\_\_\_\_  
R.I. Analytical

Sample #: 003 A1489-03B GRAB 10/09/02 @11:30

**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	7.53	92.47
No. 10	9.04	83.43
No. 20	11.32	72.11
No. 40	9.96	62.15
No. 60	21.92	40.23
No. 140	32.64	7.59
No. 200	3.60	3.99

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Mitkem Corporation  
Work Order No. 0210-13710  
Date Received: 10/17/02

Approved by: \_\_\_\_\_  
R.I. Analytical

Sample #: 004 A1489-04B GRAB 10/09/02 @11:35

**Sieve Analysis – Method ASTM D422**

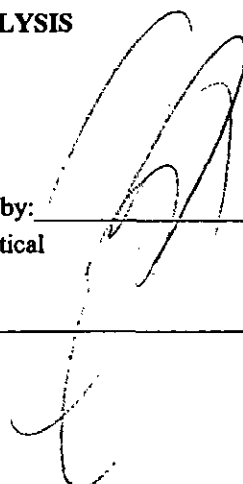
<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	0.38	99.62
No. 10	2.60	97.02
No. 20	5.35	91.67
No. 40	8.95	82.72
No. 60	33.80	48.92
No. 140	45.34	3.58
No. 200	1.76	1.82



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Work Order No. 0210-13710  
Date Received: 10/17/02

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Sample #: 012 A1489-14B GRAB 10/09/02 @15:15

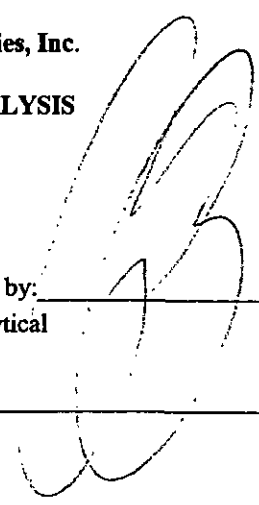
**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	7.32	92.68
No. 10	1.59	91.09
No. 20	9.35	81.74
No. 40	46.63	35.11
No. 60	26.66	8.45
No. 140	7.21	1.24
No. 200	0.67	0.57

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Mitkem Corporation  
Work Order No. 0210-13710  
Date Received: 10/17/02

Approved by:   
R.I. Analytical

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Sample #: 013 A1489-15B GRAB 10/09/02 @15:20

**Sieve Analysis – Method ASTM D422**

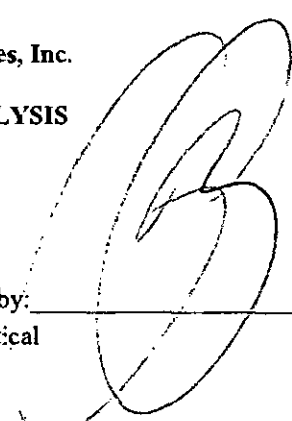
<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	1.27	98.73
No. 10	1.43	97.30
No. 20	3.42	93.88
No. 40	21.59	72.29
No. 60	50.46	21.83
No. 140	20.71	1.12
No. 200	0.72	0.40

R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

Mitkem Corporation  
Work Order No. 0210-13710  
Date Received: 10/17/02

Approved by: \_\_\_\_\_  
R.I. Analytical



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Sample #: 010 A1489-12B GRAB 10/09/02 @14:50

**Sieve Analysis – Method ASTM D422**

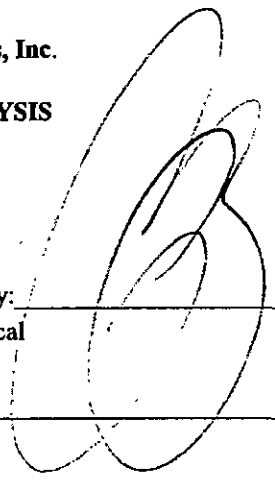
<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	13.72	86.28
No. 10	18.46	67.82
No. 20	11.27	56.55
No. 40	12.09	44.46
No. 60	25.45	19.01
No. 140	18.19	0.82
No. 200	0.55	0.27

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R.I. Analytical



Sample #: 011 A1489-13B GRAB 10/09/02 @15:00

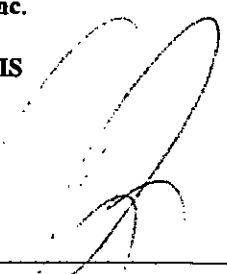
**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	0.00	100
No. 10	0.33	99.67
No. 20	0.84	98.83
No. 40	2.51	96.32
No. 60	15.96	80.36
No. 140	78.60	1.76
No. 200	1.58	0.18

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## CERTIFICATE OF ANALYSIS

Mitkem Corporation  
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Date Received: 10/17/02

Approved by:   
R.I. Analytical

Sample #: 011 (Duplicate) A1489-13B GRAB 10/09/02 @15:00

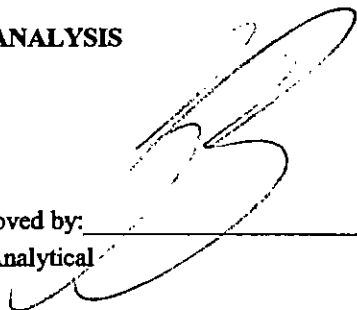
**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	0.00	100
No. 10	0.87	99.13
No. 20	1.03	98.10
No. 40	2.44	95.66
No. 60	16.02	79.64
No. 140	77.81	1.83
No. 200	1.71	0.12

R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

Mitkem Corporation  
Work Order No. 0210-13710  
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Approved by:   
R.I. Analytical

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Sample #: 001 A1489-01B GRAB 10/09/02 @12:00

**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	10.05	89.95
No. 10	5.86	84.09
No. 20	9.03	75.06
No. 40	12.66	62.40
No. 60	24.24	38.16
No. 140	31.72	6.44
No. 200	2.90	3.54

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## CERTIFICATE OF ANALYSIS

Mitkem Corporation  
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Date Received: 10/17/02

Approved by: \_\_\_\_\_  
R.I. Analytical

Sample #: 002 A1489-02B GRAB 10/09/02 @12:10

**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	19.95	80.05
No. 10	9.95	70.90
No. 20	8.69	62.21
No. 40	12.14	50.07
No. 60	20.82	29.25
No. 140	23.96	5.29
No. 200	2.21	3.08

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## CERTIFICATE OF ANALYSIS

Mitkem Corporation  
Work Order No. 0210-13710  
Date Received: 10/17/02

Approved by: \_\_\_\_\_  
R.I. Analytical

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Sample #: 028 A1489-<sup>3</sup>/<sub>20</sub>B GRAB 10/09/02 @18.45

**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	0.00	100.0
No. 10	10.92	89.08
No. 20	21.30	67.78
No. 40	15.71	52.07
No. 60	16.36	35.71
No. 140	26.18	9.53
No. 200	6.14	3.39

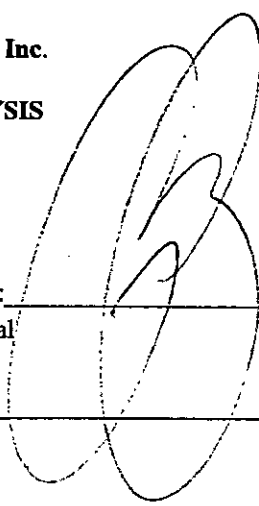


R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

Mitkem Corporation  
Work Order No. 0210-13710  
Date Received: 10/17/02

Approved by: \_\_\_\_\_  
R.I. Analytical



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Sample #: 027 A1489-29B GRAB 10/09/02 @18:35

**Sieve Analysis – Method ASTM D422**

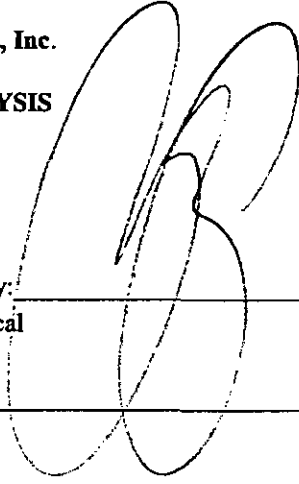
<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	10.22	89.78
No. 10	6.18	83.60
No. 20	7.10	76.50
No. 40	20.98	55.52
No. 60	38.78	16.74
No. 140	14.99	1.75
No. 200	0.88	0.87

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## CERTIFICATE OF ANALYSIS

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R.I. Analytical



Sample #: 026 A1489-28B GRAB 10/09/02 @18:20

**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	20.38	79.62
No. 10	2.41	77.21
No. 20	6.01	71.20
No. 40	11.40	59.80
No. 60	29.26	30.54
No. 140	26.84	3.70
No. 200	2.56	1.14

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## CERTIFICATE OF ANALYSIS

Mitkem Corporation  
Work Order No. 0210-13710  
Date Received: 10/17/02

Approved by: \_\_\_\_\_  
R.I. Analytical

Sample #: 025 A1489-27B GRAB 10/09/02 @18:10

**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	2.55	97.45
No. 10	4.44	93.01
No. 20	7.69	85.32
No. 40	15.50	69.82
No. 60	33.12	36.70
No. 140	29.15	7.55
No. 200	4.14	3.41

R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

Mitkem Corporation  
Work Order No. 0210-13710  
Date Received: 10/17/02

Approved by: \_\_\_\_\_  
R.I. Analytical

Sample #: 024 A1489-26B GRAB 10/09/02 @18:20

**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	0.00	100.0
No. 10	0.39	99.61
No. 20	1.92	97.69
No. 40	16.83	80.86
No. 60	68.17	12.69
No. 140	11.84	0.85
No. 200	0.78	0.07

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## CERTIFICATE OF ANALYSIS

Mitkem Corporation  
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Date Received: 10/17/02

Approved by: \_\_\_\_\_  
R.I. Analytical

Sample #: 023 A1489-25B GRAB 10/09/02 @17:45

**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	2.76	97.24
No. 10	1.94	95.30
No. 20	2.51	92.79
No. 40	4.42	88.37
No. 60	62.86	25.51
No. 140	24.92	0.59
No. 200	0.39	0.20

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## CERTIFICATE OF ANALYSIS

Mitkem Corporation  
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Date Received: 10/17/02

Approved by: \_\_\_\_\_  
R.I. Analytical

Sample #: 022 A1489-24B GRAB 10/09/02 @17:20

**Sieve Analysis – Method ASTM D422**

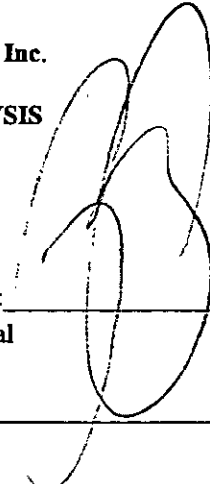
<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	19.39	80.61
No. 10	7.82	72.79
No. 20	9.99	62.80
No. 40	13.20	49.60
No. 60	19.49	30.11
No. 140	26.99	3.12
No. 200	1.75	1.37

R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

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R.I. Analytical



Sample #: 021 A1489-23B GRAB 10/09/02 @17:05

**Sieve Analysis – Method ASTM D422**

<u>Sieve Size</u>	<u>% Retained</u>	<u>% Passing</u>
No. 4	23.84	76.16
No. 10	8.01	68.15
No. 20	8.13	60.02
No. 40	11.99	48.03
No. 60	26.39	21.64
No. 140	20.28	1.36
No. 200	0.92	0.44