PMK Group
CONSULTING & ENVIRONMENTAL ENGINEERS

SITE INVESTIGATION REPORT/ INTERIM REMEDIAL ACTION WORKPLAN
VETERANS MEMORIAL PARK
BLOCK 260, LOT 15.02
SOUTH PLAINFIELD, NEW JERSEY
PMK GROUP NO. 0502014

VOLUME III

LABORATORY ANALYTICAL DATA PACKAGE

SECTION A	P3425
SECTION B	P3702

PREPARED BY:

THE PMK GROUP
PO BOX 5000
65 JACKSON DRIVE
CRANFORD, NEW JERSEY 07016

PREPARED FOR:

BOROUGH OF SOUTH PLAINFIELD
2480 PLAINFIELD AVENUE
SOUTH PLAINFIELD, NEW JERSEY 07080

OCTOBER 18, 2002

CHEMTECH 284 Sheffield Street • Mountainside, NJ 07092 Phone: 908.789.8900 Fax: 908.789.8922

DATA PACKAGE FOR
VOLATILE ORGANICS
SEMI-VOLATILE ORGANICS
GC SEMI-VOLATILES
METALS
GENERAL CHEMISTRY

PROJECT NAME: Veterans Memorial Park

PMK GROUP
65 JACKSON DRIVE
CRANFORD, NJ 07016
9084978900

CHEMTECH PROJECT NO. **P3425**
ATTENTION: **Devang Patel**

A FULL SERVICE ENVIRONMENTAL LABORATORY

CHEMTECH

284 Sheffield Street, Mountainside NJ 07092
Tel: 908-789-8900 Fax 908-789-8922

COVER PAGE

ProjectID: Veterans Memorial Park

Order P3425

CustomerName PMK Group

LAB SAMPLE NO.
P3425-01

CLIENT SAMPLE NO
GC-2

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature: _____ Name: Raytheatha, Kalpeeme

Date: 8/19/02 Title: QA Lab

NYDOH CERTIFICATION NO.11376

NJDEP CERTIFICATION NO. 20012

CHEMTECH

QA/QC DELIVERABLES CHECKLIST

Project Number: P3425

THIS FORM HAS BEEN COMPLETED BY CHEMTECH LABORATORY AND ACCOMPANIES ALL DATA DELIVERABLES PACKAGES.

The following laboratory deliverables are included in this analytical report. Any deviations from the accepted methodology and procedures, or performance values outside acceptable ranges are summarized in the Non- Conformance Summary.

		Yes	NA
I.	Report Cover Page, Laboratory Certification and Field Sample to Lab Sample ID Cross Reference	✓	
II.	Table of Contents	✓	
III.	Chain of Custody Documents	✓	
IV.	Methodology Summaries	✓	
V.	Laboratory Chronicle and Hold Time Checks	✓	
VI.	Non-Conformance Summary	✓	
VII.	Tabulated Analytical Results	✓	
VIII.	Initial and Continuing Calibration Information	✓	—
IX.	Tune and Internal Standard Area Summaries (GC/MS)	✓	—
X.	Quality Control Summary Reports	✓	—
XI.	Surrogate Recovery Summary	✓	—
XII.	Raw Data Chromatogram, Blank, Samples and QC when applicable	✓	—
XIII.	Subcontract Data	—	✓

QA/QC Data Reviewer

8/19/02
Date

☐ 110 Route 4
Englewood, NJ 07631
Phone: 201.568.7400 Fax: 201.567.3231

☑ 284 Sheffield Street
Mountainside, NJ 07092
Tel 908.789.8900 Fax: 908.789.8922

NYSDOH Certification No. 10624

NYSDOH Certification No. 11376
NJDEP Certification No. 20012

TABLE OF CONTENTS
PROJECT NUMBER: P3425NJ

	PAGE #
CHAIN OF CUSTODY	**07**
METHOD SUMMARIES	**13**
LABORATORY CHRONICLE	**13**
CASE NARRATIVE / NON - CONFORMANCE SUMMARY	**16**
VOALITILES ORGANIC DATA	**38**
ANALYTICAL RESULTS SUMMARY	39
TUNNING RESULTS SUMMARY	41
METHOD BLANK RESULTS SUMMARY	45
CALIBRATION SUMMARY	51
SURROGATE COMPOUND RECOVERY RESULTS SUMMARY	55
MS/MD RESULTS SUMMARY	57
INTERNAL STANDARDS	60
CHROMATOGRAMS	65
SEMI-VOALITILES ORGANIC DATA	**74**
ANALYTICAL RESULTS SUMMARY	75
TUNNING RESULTS SUMMARY	79
METHOD BLANK RESULTS SUMMARY	83
CALIBRATION SUMMARY	88
SURROGATE COMPOUND RECOVERY RESULTS SUMMARY	97
MS/MD RESULTS SUMMARY	99
INTERNAL STANDARDS	107
CHROMATOGRAMS	112
SEMI-VOALITILES ORGANIC DATA	**135**
ANALYTICAL RESULTS SUMMARY	136
TUNNING RESULTS SUMMARY	138
METHOD BLANK RESULTS SUMMARY	143
CALIBRATION SUMMARY	147
SURROGATE COMPOUND RECOVERY RESULTS SUMMARY	152
MS/MD RESULTS SUMMARY	154
INTERNAL STANDARDS	157
CHROMATOGRAMS	164
PESTICIDE/PCBS DATA	**174**
ANALYTICAL RESULTS SUMMARY	175
METHOD BLANK RESULTS SUMMARY	177
CALIBRATION SUMMARY	180
SURROGATE COMPOUND RECOVERY RESULTS SUMMARY	186
MS/MD RESULTS SUMMARY	188
RETENTION TIMES SUMMARY	191
CHROMATOGRAMS	194

GC DATA **201**
ANALYTICAL RESULTS SUMMARY 202
METHOD BLANK RESULTS SUMMARY 204
CALIBRATION SUMMARY 206
SURROGATE COMPOUND RECOVERY RESULTS SUMMARY 212
MS/MD RESULTS SUMMARY 214
RETENTION TIMES SUMMARY 217
CHROMATOGRAMS 220

GC DATA **226**
ANALYTICAL RESULTS SUMMARY 227
METHOD BLANK RESULTS SUMMARY 229
CHROMATOGRAMS 231

METALS DATA **243**
ANALYTICAL RESULTS SUMMARY 244
METHOD BLANK RESULTS SUMMARY 246
CALIBRATION SUMMARY 253
ICP ICS RESULTS SUMMARY 259
SPIKED SAMPLE RESULTS SUMMARY 261
DUPLICATE SAMPLE RESULT SUMMARY 264
LABORATORY CONTROL SAMPLE REESULTS SUMMARY 267
SERIAL DILUTION RESULTS SUMMARY 269

GENERAL CHEMISTRY DATA **271**
ANALYTICAL RESULTS SUMMARY 272
QC RESULTS 274

TOTAL NUMBER OF PAGES **282**

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH JOB NO.: P3425
CHEMTECH QUOTE NO.:

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: PMK GROUP
ADDRESS: 65 Jackson Dr
CITY: CRANFORD STATE: NJ ZIP:
ATTENTION: Devang Patel
PHONE: 908 497 8500 FAX:

PROJECT INFORMATION

PROJECT NAME: Veterans Memorial Park
PROJECT NO.: 0502014
PROJECT MANAGER: Devang Patel
LOCATION:
PHONE: FAX:

BILLING INFORMATION

BILL TO: PMK PO #:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: 24 hrs DAYS *
HARD COPY: DAYS *
EDD: DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESULTS ONLY
- ☐ RESULTS PLUS QC
- ☐ REGULATORY FORMAT, STATE:
- ☒ NEW JERSEY REDUCED DELIVERABLES
- ☐ CLP
- ☐ EDD FORMAT:
- ☐ NY STATE CATEGORY A
- ☐ NY STATE CATEGORY B

ANALYSIS

1 GC Finger print
2 GC/MS
3 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1. GC	GC-2	Other		X	7/23/02	5:00pm	1	X	X								
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	

← Specify Preservatives
A – HCl B – HNO_3
C – H_2SO_4 D – NaOH
E – ICE F – Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. Devang Patel	7/23/02 5:10pm	1. John Bonpani
RELINQUISHED BY: 2. John Bonpani	DATE/TIME: 7/23/02 5:45	RECEIVED BY: 2.
RELINQUISHED BY: 3.	DATE/TIME: 07/23/02 5:45	RECEIVED FOR LAB BY: 3. RS

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non-Compliant ☐ Temp. of Cooler
Comments:

Page 1 of 1

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☐ YES ☐ NO

Ver. 7/2001

WHITE – CHEMTECH COPY FOR RETURN TO CLIENT YELLOW – CHEMTECH COPY PINK – SAMPLER COPY

22635

Record Of Communication
Login Change Form

Order Number: P3425	Today's Date:
Client: PMK Group	Sample Date: 07/23/02
Client Contact: Devang Patel/John Gaspari	Form Initiated by: Omayra Penas
	Project Manager Omayra Penas
General Comments/Special Instructions: As per clients request the following analysis have been activated for Full TCLP and RCRA Charac.	

Call initiated by ☒ Client ☐ Chemtech

Login Changes

Sample Number	Add Test	Delete Test	Change TAT
P3425-01	Full TCLP, RCRA Charac.		1 week tat.

Signature Omayra Penas Date 8/19/02

QA REVIEW GENERAL DOCUMENTATION

Project #: P3425

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication, airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody and on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓

Non – Conformance /Comments:

1st Level QA Review Signature: [signature] Date: 8/19/02

2nd Level QA Review Signature: Carole Collins Date: 8/19/02

CHEMTECH

284 Sheffield Street Mountainside NJ 07092
Tel. 908-789-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.

CHEMTECH

284 Sheffield Street Mountainside NJ 07092
Tel. 908-739-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

B	If the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
U	If the analyte was analyzed for, but not detected.
E	The reported value is estimated because of the presence of interference
M	Duplicate injection precision not met.
N	Spiked sample recovery not within control limits.
S	The reported value was determined by the Method of Standard Addition (MSA).
W	Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while absorbance is less that 50% of spike absorbance.
*	Duplicate analysis not within control limits.
+	Correlation coefficient for the MSA is less than 0.995.
***	Entering "S", "W " or " +" is mutually exclusive. NO combination of these qualifiers can appear in the same field for an analyte.

M — Method qualifiers

"P"	for ICP instrument
"A"	for Flame AA
"PM"	for ICP when Microwave Digestion is used
"AM"	for flame AA when Microwave Digestion is used
"FM"	for furnace AA when Microwave Digestion is used
"CV"	for Manual Cold Vapor AA
"AV"	for automated Cold Vapor AA
"CA"	for MIDI-Distillation Spectrophotometric
"AS"	for Semi -Automated Spectrophotometric
"C"	for Manual Spectrophotometric
"T"	for Titrimetric
"NR"	for analyte not required to be analyzed

CHEMTECH 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#:20012 : NEW YORK LAB ID#: 11376

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: P3425 MATRIX: SO/L (TCLP)

METHOD: 8260

	NA	NO	YES
1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)			✓
2. GC/MS Tuning Specifications BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)			✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series			✓
4. GC/MS Calibration - Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series.			✓
5. GC/MS Calibration Requirements a. Calibration Check Compounds for 8260 and CLP			✓
b. System Performance Check Compounds for 8260 and CLP			✓

8260 CALIBRATION CRITERIA

SPCC Compounds	MIN RF	CCC Compounds
Chloromethane	0.1	1,1-Dichloroethene
1,1-Dichloroethane	0.1	Chloroform
Bromoform	0.1	1,2-Dichloropropane
Chlorobenzene	0.3	Toluene
1,1,2,2-Tetrachloroethane	0.3	Ethylbenzene
		Vinyl chloride

For CCC compounds Initial Calibration Criteria – RSD less than or equal to 30%
For CCC compounds Continuing Calibration Criteria - %D less than or equal to 20%

	NA	NO	YES
6. Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
7. Surrogate Recoveries Meet Criteria			✓

If not met, list those compounds and their recoveries which fall outside the acceptable ranges.

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY(CONTINUED)

	NA	NO	YES
8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria		✓	

If not met, list those compounds and their recoveries which fall outside the acceptable range.

PLS SEE RESULTS

9. Internal Standard Area/Retention Time Shift Meet Criteria			✓

Comments:

10. Analysis Holding Time Met			✓

If not met, list number of days exceeded for each sample:

ADDITIONAL COMMENTS:

Analyst [signature] Date 8/6/02

QA REVIEW [signature] Date 8/19/02

Document Control # A3050026

CHEMTECH 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#:20012 : NEW YORK LAB ID#: 11376

GC/MS SEMI-VOLATILE ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: P3425 MATRIX: Solid

METHOD: 8270

	NA	NO	YES
1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)			✓
2. GC/MS Tuning Specifications. DFTPP Meet Criteria Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)			✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series			✓
4. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series			✓
5. GC/MS Calibration Requirements			
a. Calibration Check Compounds for 8270 and CLP			✓
b. System Performance Check Compounds for 8270 and CLP			✓

8270 CALIBRATION CRITERIA

SPCC Compounds	MINRF
N-nitroso-di-n-propylamine	0.050
Hexachlorocyclopentadiene	0.050
2,4-Dinitrophenol	0.050
4-Nitrophenol	0.050

CCC Compounds Base/Neutral Fraction	Acid Fraction
Acenaphthene	4-Chloro-3-methylphenol
1,4-Dichlorobenzene	2,4-Dichlorophenol
Hexachlorobutadiene	2-Nitrophenol
Diphenylamine	Phenol
Di-n-octyl phthalate	Pentachlorophenol
Fluoranthene	2,4,6-Trichlorophenol
Benzo(a)pyrene	

For CCC compounds Initial Calibration Criteria – RSD less than or equal to 30%
For CCC compounds Continuing Calibration Criteria - %D less than or equal to 20%

6. Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	

a. B/N Fraction _____

b. Acid Fraction _____

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

	NA	NO	YES
7. Surrogate Recoveries Meet Criteria			✓

If not met, list those compounds and their recoveries which fall outside the acceptable ranges.

a. B/N Fraction See Summary form # 2

b. Acid Fraction

	NA	NO	YES
8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria		✓	

If not met, list those compounds and their recoveries which fall outside the acceptable range.

a. B/N Fraction See Summary form # 3

b. Acid Fraction Blankspike reported

	NA	NO	YES
9. Internal Standard Area/Retention Time Shift Meet Criteria			✓

Comments:

See Summary form # 8

	NA	NO	YES
10. Extraction Holding Time Met			✓

If not met, list number of days exceeded for each sample:

	NA	NO	YES
11. Analysis Holding Time Met			✓

If not met, list number of days exceeded for each sample:

ADDITIONAL COMMENTS:

Nina
Analyst

07/31/02
Date

R
QA REVIEW

8/19/02
Date

CHEMTECH
SOP ID: CKLST-SEMI-VOA-REV
DOC. CONTROL #: CKLST-SEMI-VOA-REV -1.0

REVISION # 1.0
Page 1 of 2
Date: 04/28/00

PEER REVIEW CHECKLIST FOR GCMS SEMI-VOA DATA

Fraction: WOC Project #: P3425

Sample Numbers: 01

QA DATA:

ITEM	Completed
Check instrument log for samples in batch. Highlights.	✓
Make sure correct lab numbers are listed on all data.	✓
Check Chain of Custody and Login Sheet for project specific information.	✓
Check that all manual integrations are initialed and dated.	✓
TUNES:	
Check that the proper tune is included and that the appropriate lab #s are listed on the tune.	✓
Check that the tune meets the correct criteria.	✓
Check that all samples were run within 12 hours for 8270 and CLP, 24 hours for 625.	✓
BLANKS:	
Check quant report for compounds called and quantitation.	✓
Check if any compounds need to be flagged with a J.	✓
Check that blank meets contamination criteria.	✓
Check blank nontargeted results for proper CAS #, retention time, compound name, mw, concentration against spectra.	✓
Check blank chromatograms to ensure that all peaks are accounted for.	✓
Check that all compounds not called are crossed off, initialed and dated on quantitation reports and tics.	✓
Check that spectra are included for all compounds called.	✓
CALIBRATION:	
Check that the proper initial and continuing calibration forms are included.	✓
Compare initial curves to continuing curve to make sure correct curves are included.	✓
Verify dates on curves.	✓
Verify that extra compound initial and continuing curves are included.	✓
Check that SPCCS and CCCS meet criteria on the initial and continuing calibrations.	✓
SURROGATES:	
Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).	✓
Check that surrogate recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.	✓
Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-extracted and re-analyzed to prove matrix interference).	✓
Verify surrogates reported to the quantitation reports.	✓
SPIKES:	
Verify that the correct spike sample is being reported for that batch.	✓
Check that the spike recoveries are reported in the appropriate form (i.e. water, soil).	✓
Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.	✓
Verify spike recoveries to quantitation reports.	✓
If any values outside of QC limits exist on MS/MSD, was Blank Spike used.	✓

Non-conformances / Comments:

SAMPLES:

ITEM	Completed
Check that all manual integrations are initialed and dated.	✓
Check quant report for targeted compounds called and randomly verify quantitation (be sure to take moisture and dilutions into account).	✓
Verify that the appropriate number and largest non-target peaks are called.	✓
Check to ensure that compounds which exceed the linear range have been diluted re-analyzed, and quanted from the dilution.	✓
Check that reporting limits are typical and if not (reason is not apparent) are footnoted.	✓
Verify reporting limits for extra compounds.	✓
Check nontargeted results for proper concentration, CAS #, retention time, compounds need to be flagged with B or J.	✓
Check that spectra are included for all compounds called.	✓
Check chromatograms to ensure that all peaks are accounted for.	✓
Check if any of the data requires a footnote.	✓
Check that the samples were run / extracted within their holding time.	✓

Non – Conformance / Comments:_____

Peer Review Signature: Kenpa D Date: 8/2/02

TECHNICAL SUPERVISOR REVIEW:

ITEM	Completed
Check for compliance with the Method and project specific requirements.	
Check the report for completeness.	
Check the information in the case narrative.	
Check the results for reasonableness.	

Technical Supervisor Review Signature: [illegible] Date: 8/19/02

GC/MS SEMI-VOLATILE ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: P3425NJ MATRIX: Water

METHOD: 8270

	NA	NO	YES
1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)			✓
2. GC/MS Tuning Specifications. DFTPP Meet Criteria Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)			✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series			✓
4. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series			✓
5. GC/MS Calibration Requirements			
a. Calibration Check Compounds for 8270 and CLP			✓
b. System Performance Check Compounds for 8270 and CLP			✓

8270 CALIBRATION CRITERIA

SPCC Compounds	MINRF
N-nitroso-di-n-propylamine	0.050
Hexachlorocyclopentadiene	0.050
2,4-Dinitrophenol	0.050
4-Nitrophenol	0.050

CCC Compounds Base/Neutral Fraction	Acid Fraction
Acenaphthene	4-Chloro-3-methylphenol
1,4-Dichlorobenzene	2,4-Dichlorophenol
Hexachlorobutadiene	2-Nitrophenol
Diphenylamine	Phenol
Di-n-octyl phthalate	Pentachlorophenol
Fluoranthene	2,4,6-Trichlorophenol
Benzo(a)pyrene	

For CCC compounds Initial Calibration Criteria – RSD less than or equal to 30%
For CCC compounds Continuing Calibration Criteria - %D less than or equal to 20%

6. Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	

a. B/N Fraction _____

b. Acid Fraction _____

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

	NA	NO	YES
7. Surrogate Recoveries Meet Criteria			✓

If not met, list those compounds and their recoveries which fall outside the acceptable ranges.

a. B/N Fraction _____

b. Acid Fraction _____

	NA	NO	YES
8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria		✓	

If not met, list those compounds and their recoveries which fall outside the acceptable range.

a. B/N Fraction See summary page (Form #3)

b. Acid Fraction BLKspk reported.

	NA	NO	YES
9. Internal Standard Area/Retention Time Shift Meet Criteria			✓

Comments:

	NA	NO	YES
10. Extraction Holding Time Met			✓

If not met, list number of days exceeded for each sample:

	NA	NO	YES
11. Analysis Holding Time Met			✓

If not met, list number of days exceeded for each sample:

ADDITIONAL COMMENTS: _____

Analyst [signature] Date 08/10/02

QA REVIEW [signature] Date 8/19/02

PEER REVIEW CHECKLIST FOR GCMS SEMI-VOA DATA

Fraction: SVOC Project #: P3425

Sample Numbers: 01

QA DATA:

ITEM	Completed
Check instrument log for samples in batch. Highlights.	✓
Make sure correct lab numbers are listed on all data.	✓
Check Chain of Custody and Login Sheet for project specific information.	✓
Check that all manual integrations are initialed and dated.	✓
TUNES:	
Check that the proper tune is included and that the appropriate lab #s are listed on the tune.	✓
Check that the tune meets the correct criteria.	✓
Check that all samples were run within 12 hours for 8270 and CLP, 24 hours for 625.	✓
BLANKS:	
Check quant report for compounds called and quantitation.	✓
Check if any compounds need to be flagged with a J.	✓
Check that blank meets contamination criteria.	✓
Check blank nontargeted results for proper CAS #, retention time, compound name, mw, concentration against spectra.	✓
Check blank chromatograms to ensure that all peaks are accounted for.	✓
Check that all compounds not called are crossed off, initialed and dated on quantitation reports and tics.	✓
Check that spectra are included for all compounds called.	✓
CALIBRATION:	
Check that the proper initial and continuing calibration forms are included.	✓
Compare initial curves to continuing curve to make sure correct curves are included.	✓
Verify dates on curves.	✓
Verify that extra compound initial and continuing curves are included.	✓
Check that SPCCS and CCCS meet criteria on the initial and continuing calibrations.	✓
SURROGATES:	
Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).	✓
Check that surrogate recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.	✓
Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-extracted and re-analyzed to prove matrix interference).	✓
Verify surrogates reported to the quantitation reports.	✓
SPIKES:	
Verify that the correct spike sample is being reported for that batch.	✓
Check that the spike recoveries are reported in the appropriate form (i.e. water, soil).	✓
Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.	✓
Verify spike recoveries to quantitation reports.	✓
If any values outside of QC limits exist on MS/MSD, was Blank Spike used.	✓

Non-conformances / Comments:

SAMPLES:

ITEM	Completed
Check that all manual integrations are initialed and dated.	✓
Check quant report for targeted compounds called and randomly verify quantitation (be sure to take moisture and dilutions into account).	✓
Verify that the appropriate number and largest non-target peaks are called.	✓
Check to ensure that compounds which exceed the linear range have been diluted re-analyzed, and quanted from the dilution.	✓
Check that reporting limits are typical and if not (reason is not apparent) are footnoted.	✓
Verify reporting limits for extra compounds.	✓
Check nontargeted results for proper concentration, CAS #, retention time, compounds need to be flagged with B or J.	✓
Check that spectra are included for all compounds called.	✓
Check chromatograms to ensure that all peaks are accounted for.	✓
Check if any of the data requires a footnote.	✓
Check that the samples were run / extracted within their holding time.	✓

Non – Conformance / Comments:_____

Peer Review Signature: Kaupa Date: 8/11/02

TECHNICAL SUPERVISOR REVIEW:

ITEM	Completed
Check for compliance with the Method and project specific requirements.	
Check the report for completeness.	
Check the information in the case narrative.	
Check the results for reasonableness.	

Technical Supervisor Review Signature: R Date: 8/19/02

chklst-semi-voa-rev1.doc

CHEMTECH 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#:20012 : NEW YORK LAB ID#: 11376

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT LAB NUMBER: B3425 MATRIX: LEACHATE METHOD: 8081

	YES	NA	NO
1. Chromatograms Labeled/Compounds Identified.	✓		
2. Standards Summary Submitted	✓		
3. Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD	✓		
4. Blank Contamination - If yes, list compounds and concentrations in each blank:			✓
5. Surrogate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable ranges.	✓		
6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. If not met, list those compounds and their recoveries which fall outside the acceptable range. matrix Interference			✓
7. Retention Time Shift Meet Criteria (if applicable)	✓		
8. Extraction Holding Time Met If not met, list number of days exceeded for each sample.	✓		
9 Analysis Holding Time Met If not met, list those compounds and their recoveries which fall outside the acceptable range.	✓		

Additional Comments: RT updated as per SW846

Analyst [signature] Date Aug 12, 2002

QA REVIEW [signature] Date 8/19/02

Document Control # A3040027

Page 1 of 1

NONCONGC A3040027.DOC

PEER REVIEW CHECKLIST FOR GC DATA

Fraction: Pest

Project #: P3U25

Sample Numbers: P3U25-01

QA DATA:

ITEM	Completed
Check instrument log for samples in batch. Highlights.	✓
Make sure correct lab numbers are listed on all data.	✓
Check Chain Custody and Login Sheet for project specific information.	✓
Check that all manual integrations are initialed and dated.	✓
Verify that the retention time of every peak of interest meet the criteria for window (RT ±3 times the standard deviation of the mean absolute value or default to 0.03 minutes.).	
BLANKS:	
Check quant report for compounds called and quantitation.	✓
Check if any compounds need to be flagged with a J.	✓
Check that blank meets contamination criteria.	✓
Check blank chromatograms to ensure that all peaks are accounted for.	✓
Check that all compounds not called are crossed off, initialed and dated on quantitation reports.	✓
CALIBRATION:	
Check that the proper initial and continuing calibration forms are included.	✓
Compare initial curves to continuing curve to make sure correct curves are included.	✓
Verify dates on curves.	✓
Verify that extra compound initial calibration and continuing are included.	✓
Verify that a continuous calibration check is run every 12 hrs for 8000 series and CLP and every 24hrs for 600 series	✓
Check that the criteria is met on the initial and continuing calibrations. 20% RSD for initial calibration and 15% for continuing calibration for 8000 series, 25% for CLP and 10% RSD and Table on SOP for continuing for 600 series	✓
Verify a closing check is analyzed for each analytical sequence	✓
Verify that the concentration of the CCC is varied	✓
SURROGATES:	
Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).	✓
Check that surrogate recoveries meet QC limits listed on the form. Make sure values outside of limits are flagged and tallied.	✓
Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-analyzed to prove matrix interference).	✓
Verify surrogates reported to the quantitation reports.	✓
SPIKES:	
Check that appropriate sample is on the spike recovery form.	✓
Verify that the correct spike sample is being reported for that batch.	✓
Check that the spike recoveries are reported on the appropriate form (i.e. water, soil).	✓
Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.	✓
Verify spike recoveries to quantitation reports.	✓
Verify that a blank spike was analyzed for each batch of 20 samples.	✓
Verify that the blank spike meets QC requirements (70-130%).	✓
If any values outside of QC limits exist on MS/MSD, was Blank Spike used?	✓

Non-conformances / Comments: _____

SAMPLES:

ITEM	Completed
Check that all manual integrations are initialed , dated and justified.	✓
Check that the correct sample matrix and units are on the result form.	✓
Check quant report for targeted compounds called and verify quantitation (be sure to take moisture and dilutions into account).	
Check to ensure that compounds which exceeds the linear range have been, diluted, re-analyzed, and quanted from the dilution.	✓
Check that reporting limits are typical and if not (reason is not apparent) are footnoted.	✓
Verify reporting limits for extra compounds.	✓
Check chromatograms to ensure that all peaks are accounted for.	✓
Check if any of the data requires a footnote.	✓
Check that the samples were analyzed / extracted within their holding time.	✓
	✓

Non – Conformance / Comments: _____

Peer Review Signature: _____ Date: Aug 12, 2002

TECHNICAL SUPERVISOR REVIEW:

ITEM	Completed
Check for compliance with the Method and project specific requirements.	
Check the report for completeness.	
Check the information in the case narrative.	
Check the results for reasonableness.	

Technical Supervisor Review Signature: _____ Date: 08/12/02

CHEMTECH 284 Sheffield Street. Mountainside New Jersey 07092

NEW JERSEY LAB ID#:20012 : NEW YORK LAB ID#: 11376

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT LAB NUMBER: 3425 MATRIX: TCLP Herb METHOD: 8151

	YES	NA	NO
1. Chromatograms Labeled/Compounds Identified.	✓		
2. Standards Summary Submitted	✓		
3. Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD	✓		
4. Blank Contamination - If yes, list compounds and concentrations in each blank:			✓
5. Surrogate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable ranges.	✓		
6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. If not met, list those compounds and their recoveries which fall outside the acceptable range.	✓		
7. Retention Time Shift Meet Criteria (if applicable)	✓		
8. Extraction Holding Time Met If not met, list number of days exceeded for each sample.	✓		
9 Analysis Holding Time Met If not met, list those compounds and their recoveries which fall outside the acceptable range.	✓		

Additional Comments:

Analyst: Bonny [signature] — Date: 8/8/02

QA REVIEW: [signature] — Date: 8/19/02

Document Control # A3040027

Page 1 of 1

NONCONGC A3040027.DOC

PEER REVIEW CHECKLIST FOR GC DATA

Fraction: TCIP Herb

Project #: 3425

Sample Numbers: 1

QA DATA:

ITEM	Completed
Check instrument log for samples in batch. Highlights.	✓
Make sure correct lab numbers are listed on all data.	✓
Check Chain Custody and Login Sheet for project specific information.	✓
Check that all manual integrations are initialed and dated.	✓
Verify that the retention time of every peak of interest meet the criteria for window (RT ±3 times the standard deviation of the mean absolute value or default to 0.03 minutes.)	
BLANKS:	✓
Check quant report for compounds called and quantitation.	✓
Check if any compounds need to be flagged with a J.	✓
Check that blank meets contamination criteria.	✓
Check blank chromatograms to ensure that all peaks are accounted for.	✓
Check that all compounds not called are crossed off, initialed and dated on quantitation reports.	
CALIBRATION:	✓
Check that the proper initial and continuing calibration forms are included.	✓
Compare initial curves to continuing curve to make sure correct curves are included.	✓
Verify dates on curves.	
Verify that extra compound initial calibration and continuing are included.	✓
Verify that a continuous calibration check is run every 12 hrs for 8000 series and CLP and every 24hrs for 600 series	✓
Check that the criteria is met on the initial and continuing calibrations.	
20% RSD for initial calibration and 15% for continuing calibration for 8000 series, 25% for CLP and 10% RSD and Table on SOP for continuing for 600 series	✓
Verify a closing check is analyzed for each analytical sequence	✓
Verify that the concentration of the CCC is varied	✓
SURROGATES:	
Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).	✓
Check that surrogate recoveries meet QC limits listed on the form. Make sure values outside of limits are flagged and tallied.	✓
Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-analyzed to prove matrix interference).	✓
Verify surrogates reported to the quantitation reports.	✓
SPIKES:	
Check that appropriate sample is on the spike recovery form.	✓
Verify that the correct spike sample is being reported for that batch.	✓
Check that the spike recoveries are reported on the appropriate form (i.e. water, soil).	✓
Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.	✓
Verify spike recoveries to quantitation reports.	✓
Verify that a blank spike was analyzed for each batch of 20 samples.	✓
Verify that the blank spike meets QC requirements (70-130%).	✓
If any values outside of QC limits exist on MS/MSD, was Blank Spike used?	

Non-conformances / Comments: _____

SAMPLES:

ITEM	Completed
Check that all manual integrations are initialed , dated and justified.	✓
Check that the correct sample matrix and units are on the result form.	✓
Check quant report for targeted compounds called and verify quantitation (be sure to take moisture and dilutions into account).	✓
Check to ensure that compounds which exceeds the linear range have been, diluted, re-analyzed, and quanted from the dilution.	
Check that reporting limits are typical and if not (reason is not apparent) are footnoted.	✓
Verify reporting limits for extra compounds.	✓
Check chromatograms to ensure that all peaks are accounted for.	✓
Check if any of the data requires a footnote.	✓
Check that the samples were analyzed / extracted within their holding time.	✓

Non – Conformance / Comments: _____

Peer Review Signature: [signature] Date: 8/8/02

TECHNICAL SUPERVISOR REVIEW:

ITEM	Completed
Check for compliance with the Method and project specific requirements.	
Check the report for completeness.	
Check the information in the case narrative.	
Check the results for reasonableness.	

Technical Supervisor Review Signature: [signature] Date: 08/09/02

PEER REVIEW CHECKLIST FOR GC DATA

Fraction: Finger Print

Project #: P3425

Sample Numbers: 01

QA DATA:

ITEM	Completed
Check instrument log for samples in batch. Highlights.	
Make sure correct lab numbers are listed on all data.	
Check Chain Custody and Login Sheet for project specific information.	
Check that all manual integrations are initialed and dated.	
Verify that the retention time of every peak of interest meet the criteria for window (RT ±3 times the standard deviation of the mean absolute value or default to 0.03 minutes.)	
BLANKS:	
Check quant report for compounds called and quantitation.	
Check if any compounds need to be flagged with a J.	
Check that blank meets contamination criteria.	
Check blank chromatograms to ensure that all peaks are accounted for.	
Check that all compounds not called are crossed off, initialed and dated on quantitation reports.	
CALIBRATION:	
Check that the proper initial and continuing calibration forms are included.	
Compare initial curves to continuing curve to make sure correct curves are included.	
Verify dates on curves.	
Verify that extra compound initial calibration and continuing are included.	
Verify that a continuous calibration check is run every 12 hrs for 8000 series and CLP and every 24hrs for 600 series	
Check that the criteria is met on the initial and continuing calibrations.	
20% RSD for initial calibration and 15% for continuing calibration for 8000 series, 25% for CLP and 10% RSD and Table on SOP for continuing for 600 series	
Verify a closing check is analyzed for each analytical sequence	
Verify that the concentration of the CCC is varied	
SURROGATES:	
Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).	
Check that surrogate recoveries meet QC limits listed on the form. Make sure values outside of limits are flagged and tallied.	
Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-analyzed to prove matrix interference).	
Verify surrogates reported to the quantitation reports.	
SPIKES:	
Check that appropriate sample is on the spike recovery form.	
Verify that the correct spike sample is being reported for that batch.	
Check that the spike recoveries are reported on the appropriate form (i.e. water, soil).	
Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.	
Verify spike recoveries to quantitation reports.	
Verify that a blank spike was analyzed for each batch of 20 samples.	
Verify that the blank spike meets QC requirements (70-130%).	
If any values outside of QC limits exist on MS/MSD, was Blank Spike used?	

Non-conformances / Comments: _____

SAMPLES:

ITEM	Completed
Check that all manual integrations are initialed , dated and justified.	✓
Check that the correct sample matrix and units are on the result form.	✓
Check quant report for targeted compounds called and verify quantitation (be sure to take moisture and dilutions into account).	
Check to ensure that compounds which exceeds the linear range have been, diluted, re-analyzed, and quanted from the dilution.	✓
Check that reporting limits are typical and if not (reason is not apparent) are footnoted.	✓
Verify reporting limits for extra compounds.	
Check chromatograms to ensure that all peaks are accounted for.	✓
Check if any of the data requires a footnote.	✓
Check that the samples were analyzed / extracted within their holding time.	✓

Non – Conformance / Comments: _____

Peer Review Signature: [signature] Date: 08/05/02

TECHNICAL SUPERVISOR REVIEW:

ITEM	Completed
Check for compliance with the Method and project specific requirements.	
Check the report for completeness.	
Check the information in the case narrative.	
Check the results for reasonableness.	

Technical Supervisor Review Signature: [signature] Date: Aug 05, 2002

CHEMTECH 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#:20012 : NEW YORK LAB ID#: 11376

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT LAB NUMBER: P3425 MATRIX: Soil METHOD: 8015

	YES	NA	NO
1. Chromatograms Labeled/Compounds Identified.	✓		
2. Standards Summary Submitted			
3. Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD	✓		
4. Blank Contamination - If yes, list compounds and concentrations in each blank:			✓
5. Surrogate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable ranges.	✓		
6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. If not met, list those compounds and their recoveries which fall outside the acceptable range.	✓		
7. Retention Time Shift Meet Criteria (if applicable)	✓		
8. Extraction Holding Time Met If not met, list number of days exceeded for each sample.			
9 Analysis Holding Time Met If not met, list those compounds and their recoveries which fall outside the acceptable range.	✓		

Additional Comments:

Analyst: [signature] Date: 08/05/02

QA REVIEW: [signature] Date: 8/19/02

Document Control # A3040027

Page 1 of 1

NONCONGC A3040027.DOC

CHEMTECH 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#:20012 : NEW YORK LAB ID#: 11376

METALS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: P3425 NJ MATRIX: TCLP

METHOD: SW846

	NA	NO	YES
1. Calibration Summary meet criteria.			✓
2. ICP Interference Check Sample Results Summary Submitted Meet criteria Blank Contamination			✓
3. Serial Dilution Summary Submitted (if applicable)meet criteria			✓
4. Laboratory Control Sample Summary Submitted (if applicable)			✓
5. Blank Contamination		✓	
If YES, list compounds and concentrations in each blank:			
6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria			✓
If not met, list those compounds and their recoveries which fall outside of the acceptance range:			
7. Sample Duplicate Analysis Meet QC Criteria:			✓
If not met, list those compounds and their % differences which fall outside of the acceptance range:			
8. Digestion Holding Time Met			✓
If not met, list number of days exceeded for each sample:			
9. Analysis Holding Time Met			✓
If not met, list number of days exceeded for each sample:			

ADDITIONAL COMMENTS:

Dante Rogue — Supervisor — Date: 8/16/02

R — QA REVIEW — Date: 8/19/02

CHEMTECH 205 CAMPUS PLAZA I. RARITAN CENTER EDISON NEW JERSEY 08837
NEW JERSEY LAB ID#:12013 : NEW YORK LAB ID#: 11376

GENERAL CHEMISTRY CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: P3425 MATRIX: Solid

METHOD: SW846

	NA	NO	YES
1. Blank Contamination	✓		

If YES, list compounds and concentrations in each blank:

	NA	NO	YES
2. Matrix Spike Recoveries Meet Criteria			✓

If not met, list those compounds and their recoveries which fall outside of the acceptance range:

	NA	NO	YES
3. Sample Duplicate Analysis Meet QC Criteria:			✓

If not met, list those compounds and their % differences which fall outside of the acceptance range:

	NA	NO	YES
4. Analysis Holding Time Met			✓

If not met, list number of days exceeded for each sample:

ADDITIONAL COMMENTS:

Supervisor — Date: 8/12/02

QA REVIEW — Date: 8/19/02

Chemtech Consulting Group

TCLP Volatiles

SW-846

SDG No.: P3425

Client: PMK Group

Sample ID: P3425-01

Client ID: GC-2

Date Collected: 7/23/02

Date Received: 7/23/02

Date Analyzed: 8/2/02

Matrix: TCLP

File ID: VB080115.D

Analytical Run ID: VB071702

Dilution: 5

Instrument ID: MSVOAB

Analytical Method: 8260

Associated Blank: VBB0801W1

Sample Wt/Wol: 5.0 Units: mL

Soil Extract Vol:

Soil Aliquot Vol:

% Moisture: 100

S 3/6/03

Parameter	CAS Number	Concentration	C	RDL	MDL	Units
TARGETS						
Vinyl chloride	75-01-4	< 4.0	U	25	4.0	ug/L
1,1-Dichloroethene	75-35-4	< 3.4	U	25	3.4	ug/L
Chloroform	67-66-3	< 3.0	U	25	3.0	ug/L
1,2-Dichloroethane	107-06-2	< 2.8	U	25	2.8	ug/L
2-Butanone	78-93-3	< 12	U	25	12	ug/L
Carbon Tetrachloride	56-23-5	< 2.4	U	25	2.4	ug/L
Trichloroethene	79-01-6	< 3.6	U	25	3.6	ug/L
Benzene	71-43-2	< 3.6	U	25	3.6	ug/L
Tetrachloroethene	127-18-4	< 3.5	U	25	3.5	ug/L
Chlorobenzene	108-90-7	< 3.9	U	25	3.9	ug/L
SURROGATES						
1,2-Dichloroethane-d4	79-00-5	53.14	106 %	68 - 135		SPK: 50
Toluene-d8	2037-26-5	46.94	94 %	70 - 125		SPK: 50
4-Bromofluorobenzene	460-00-4	47.68	95 %	70 - 125		SPK: 50
Dibromofluoromethane		46.52	93 %	70 - 125		SPK: 50
INTERNAL STANDARDS						
Pentafluorobenzene	363-72-4	892581	7.52			
1,4-Difluorobenzene	540-36-3	1186778	8.74			
Chlorobenzene-d5	3114-55-4	939465	14.43			
1,4-Dichlorobenzene-d4	3855-82-1	618508	19.77			

Chemtech Consulting Group

SVOC-Chemtech Full

SW-846

SDG No.: P3425-01

Client: PMK Group

Sample ID:	P3425-01	**Client ID:**	GC-2
Date Collected:	7/23/02	**Date Received:**	7/23/02
Date Analyzed:	7/24/02	**Matrix:**	SOIL
Date Extracted:	7/23/02	**File ID:**	BD001179.D
Dilution:	1	**Instrument ID:**	5971D
Analytical Method:	8270	**Analytical Run ID:**	1
Sample Wt/Wol:	1.1	**Extract Vol:**	10000
Injection Vol:	2	**% Moisture:**	4
Associated Blank:	PB072302-20B		

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
Phenol	360000		94000	9400	ug/Kg
is(2-Chloroethyl)ether	< 11000	U	94000	11000	ug/Kg
2-Chlorophenol	< 10000	U	94000	10000	ug/Kg
,2-Dichlorobenzene	< 9400	U	94000	9400	ug/Kg
,3-Dichlorobenzene	< 11000	U	94000	11000	ug/Kg
1,4-Dichlorobenzene	< 9400	U	94000	9400	ug/Kg
enzyl Alcohol	< 9400	U	94000	9400	ug/Kg
-Methylphenol	40000	J	94000	9400	ug/Kg
2,2'-oxybis(1-chloropropane)	< 9400	U	94000	9400	ug/Kg
+4-Methylphenols	43000	J	94000	17000	ug/Kg
N-Nitroso-di-n-propylamine	< 9400	U	94000	9400	ug/Kg
Hexachloroethane	< 10000	U	94000	10000	ug/Kg
itrobenzene	< 9400	U	94000	9400	ug/Kg
Isophorone	< 9400	U	94000	9400	ug/Kg
2-Nitrophenol	< 10000	U	94000	10000	ug/Kg
4-Dimethylphenol	30000	J	94000	22000	ug/Kg
bis(2-Chloroethoxy)methane	< 9400	U	94000	9400	ug/Kg
4-Dichlorophenol	< 12000	U	94000	12000	ug/Kg
2,4-Trichlorobenzene	< 11000	U	94000	11000	ug/Kg
Benzoic acid	< 9500	U	94000	9500	ug/Kg
aphthalene	< 11000	U	94000	11000	ug/Kg
Chloroaniline	< 11000	U	94000	11000	ug/Kg
Hexachlorobutadiene	< 14000	U	94000	14000	ug/Kg
Chloro-3-methylphenol	< 10000	U	94000	10000	ug/Kg
Methylnaphthalene	< 11000	U	94000	11000	ug/Kg
Hexachlorocyclopentadiene	< 36000	U	94000	36000	ug/Kg
4,6-Trichlorophenol	< 9400	U	94000	9400	ug/Kg
2,4,5-Trichlorophenol	< 9400	U	240000	9400	ug/Kg
2-Chloronaphthalene	< 11000	U	94000	11000	ug/Kg
Nitroaniline	< 9400	U	240000	9400	ug/Kg
Dimethylphthalate	< 9400	U	94000	9400	ug/Kg

Chemtech Consulting Group

SVOC-Chemtech Full

SW-846

SDG No.: P3425-01

Client: PMK Group

Sample ID: P3425-01

Client ID: GC-2

Date Collected: 7/23/02
Date Analyzed: 7/24/02
Date Extracted: 7/23/02
Dilution: 1
Analytical Method: 8270
Sample Wt/Wol: 1.1
Injection Vol: 2
Associated Blank: PB072302-20B

Date Received: 7/23/02
Matrix: SOIL
File ID: BD001179.D
Instrument ID: 5971D
Analytical Run ID: 1
Extract Vol: 10000
% Moisture: 4

Parameter	Concentration	C	RDL	MDL	Units
ARGETS					
Acenaphthylene	< 11000	U	94000	11000	ug/Kg
6-Dinitrotoluene	< 9400	U	94000	9400	ug/Kg
3-Nitroaniline	< 11000	U	240000	11000	ug/Kg
cenaphthene	< 11000	U	94000	11000	ug/Kg
4-Dinitrophenol	< 19000	U	240000	19000	ug/Kg
4-Nitrophenol	< 10000	U	240000	10000	ug/Kg
ibenzofuran	15000	J	94000	9400	ug/Kg
4-Dinitrotoluene	< 10000	U	94000	10000	ug/Kg
Diethylphthalate	< 9400	U	94000	9400	ug/Kg
Chlorophenyl-phenylether	< 11000	U	94000	11000	ug/Kg
uorene	< 10000	U	94000	10000	ug/Kg
4-Nitroaniline	< 22000	U	240000	22000	ug/Kg
6-Dinitro-2-methylphenol	< 11000	U	240000	11000	ug/Kg
N-Nitrosodiphenylamine	< 19000	U	94000	19000	ug/Kg
Azobenzene	< 10000	U	94000	10000	ug/Kg
Bromophenyl-phenylether	< 12000	U	94000	12000	ug/Kg
Hexachlorobenzene	< 10000	U	94000	10000	ug/Kg
Pentachlorophenol	< 18000	U	240000	18000	ug/Kg
enanthrene	< 9400	U	94000	9400	ug/Kg
Anthracene	< 12000	U	94000	12000	ug/Kg
-n-butylphthalate	< 11000	U	94000	11000	ug/Kg
uoranthene	< 9400	U	94000	9400	ug/Kg
Benzidine	< 10000	U	94000	10000	ug/Kg
rene	< 9400	U	94000	9400	ug/Kg
tylbenzylphthalate	< 9400	U	94000	9400	ug/Kg
3,3'-Dichlorobenzidine	12000	J	94000	9400	ug/Kg
nzo(a)anthracene	< 9400	U	94000	9400	ug/Kg
Chrysene	< 15000	U	94000	15000	ug/Kg
bis(2-Ethylhexyl)phthalate	< 9400	U	94000	9400	ug/Kg
-n-octyl phthalate	< 14000	U	94000	14000	ug/Kg
Benzo(b)fluoranthene	< 9400	U	94000	9400	ug/Kg

Chemtech Consulting Group

SVOC-Chemtech Full
SW-846

SDG No.: P3425-01

Client: PMK Group

Sample ID:	P3425-01	Client ID:	GC-2
Date Collected:	7/23/02	Date Received:	7/23/02
Date Analyzed:	7/24/02	Matrix:	SOIL
Date Extracted:	7/23/02	File ID:	BD001179.D
Dilution:	1	Instrument ID:	5971D
Analytical Method:	8270	Analytical Run ID:	1
Sample Wt/Wol:	1.1	Extract Vol:	10000
Injection Vol:	2	% Moisture:	4
Associated Blank:	PB072302-20B		

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
Benzo(k)fluoranthene	< 24000	U	94000	24000	ug/Kg
Benzo(a)pyrene	< 14000	U	94000	14000	ug/Kg
Indeno(1,2,3-cd)pyrene	< 15000	U	94000	15000	ug/Kg
Dibenz(a,h)anthracene	< 14000	U	94000	14000	ug/Kg
Benzo(g,h,i)perylene	< 12000	U	94000	12000	ug/Kg
SURROGATES					
2-Fluorophenol	115	38 %	25 - 121		SPK: 300
Phenol-d5	142	47 %	24 - 113		SPK: 300
Nitrobenzene-d5	133	66 %	23 - 120		SPK: 200
2-Fluorobiphenyl	116	58 %	30 - 116		SPK: 200
2,4,6-Tribromophenol	120	40 %	19 - 122		SPK: 300
Terphenyl-d14	132	66 %	18 - 137		SPK: 200
INTERNAL STANDARDS					
1,4-Dichlorobenzene-d4	104447	6.27			
Naphthalene-d8	294564	8.75			
Acenaphthene-d10	198213	12.51			
Phenanthrene-d10	274302	15.70			
Chrysene-d12	203778	21.54			
Perylene-d12	153240	24.47			
TENTITIVE IDENTIFIED COMPOUNDS					
Phenol, 2,2-methylenebis-	190000	J	17.58		ug/Kg
Benzene, 1-methoxy-3-phenoxy-	690000	J	17.95		ug/Kg
Unknown	23000	J	18.24		ug/Kg
Unknown	37000	J	18.31		ug/Kg
Unknown	61000	J	19.00		ug/Kg
Unknown	33000	J	19.02		ug/Kg
Unknown	83000	J	19.03		ug/Kg

TCLP BNA
SW-846

SDG No.: P3425-01

Client: PMK Group

Sample ID:	P3425-01	Client ID:	GC-2
Date Collected:	7/23/02	Date Received:	7/23/02
Date Analyzed:	8/6/02	Matrix:	WATER
Date Extracted:	8/1/02	File ID:	BD001532.D
Dilution:	1	Instrument ID:	5971D
Analytical Method:	8270	Analytical Run ID:	BD080502
Sample Wt/Vol:	100.0	Extract Vol:	1000
Injection Vol:	2	% Moisture:	100
Associated Blank:			

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
Pyridine	< 11	U	99	11	ug/L
1,4-Dichlorobenzene	< 9.9	U	99	9.9	ug/L
2-Methylphenol	760		99	9.9	ug/L
3,4-Methylphenols	680		99	18	ug/L
Hexachloroethane	< 11	U	99	11	ug/L
Nitrobenzene	< 9.9	U	99	9.9	ug/L
Hexachlorobutadiene	< 15	U	99	15	ug/L
2,4,5-Trichlorophenol	< 9.9	U	250	9.9	ug/L
2,4,6-Trichlorophenol	< 9.9	U	99	9.9	ug/L
2,4-Dinitrotoluene	< 11	U	99	11	ug/L
Hexachlorobenzene	< 11	U	99	11	ug/L
Pentachlorophenol	< 19	U	250	19	ug/L
SURROGATES					
2-Fluorophenol	79.76	27 %	21 - 100		SPK: 300
Phenol-d5	56.18	19 %	10 - 94		SPK: 300
Nitrobenzene-d5	173.13	87 %	35 - 114		SPK: 200
2-Fluorobiphenyl	176.74	88 %	43 - 116		SPK: 200
2,4,6-Tribromophenol	202.62	68 %	10 - 123		SPK: 300
Terphenyl-d14	247.03	124 %	33 - 141		SPK: 200
INTERNAL STANDARDS					
1,4-Dichlorobenzene-d4	47469	5.94			
Naphthalene-d8	131262	8.40			
Acenaphthene-d10	104211	12.14			
Phenanthrene-d10	160932	15.30			
Chrysene-d12	110388	21.18			
Perylene-d12	74811	24.08			

8/6/02

TCLP Pesticide
SW-846

SDG No.: P3425-01

Client: PMK Group

Sample ID: P3425-01

Client ID: GC-2

Date Collected: 7/23/02
Date Analyzed: 8/3/02
Date Extracted: 8/1/02
Dilution: 1
Analytical Method: 8081
% Moisture: 100.0

Date Received: 7/23/02
Matrix: TCLP
File ID: 3PS6886.D
Instrument ID: ECD3
Analytical Run ID: 3PS0729
Associated Blank: PB080202-10B

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
gamma-BHC (Lindane)	< 0.09	U	0.50	0.09	ug/L
Heptachlor	< 0.07	U	0.50	0.07	ug/L
Heptachlor epoxide	< 0.08	U	0.50	0.08	ug/L
Endrin	< 0.22	U	0.50	0.22	ug/L
Methoxychlor	< 0.08	U	0.50	0.08	ug/L
Toxaphene	< 1.200	U	5.0	1.200	ug/L
Chlordane	< 1.300	U	5.0	1.300	ug/L
SURROGATES					
Decachlorobiphenyl	10.9	54 %	30 - 150		SPK: 20
Tetrachloro-m-xylene	20.15	101 %	30 - 150		SPK: 20

TCLP Herbicides

SW-846

SDG No.: P3425-01

Client: PMK Group

Sample ID: P3425-01

Client ID: GC-2

Date Collected: 7/23/02
Date Analyzed: 8/6/02
Date Extracted: 8/3/02
Dilution: 1
Analytical Method: TCLP Herbicide
% Moisture: 100.0

Date Received: 7/23/02
Matrix: TCLP
File ID: 6PC0844.D
Instrument ID: ECD5
Analytical Run ID: 6PC0802
Associated Blank: PB080502-14 B

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
2,4-D	< 0.24	U	1.0	0.24	ug/L
2,4,5-TP (Silvex)	< 0.09	U	1.0	0.09	ug/L
SURROGATES					
2,4-DCAA	37.3	75 %	24 - 151		SPK: 50

TABULATED ANALYTICAL REPORT
QUALITATIVE GC FINGERPRINT BY 8015

CLIENT:	PMK GROUP
CLIENT PROJECT :	Veterans Memorial Pa
REPORT DATE	8/5/02
PROJECT RECEIVED DATE :	7/23/02
ANALYSIS DATE	7/23/02
EXT. DATE:	7/23/02
MATRIX:	SOIL
LAB PROJECT:	P3425

CLIENT ID	FILE ID	LAB ID	FUEL TYPE
GC-2	BA5790	P3425-01	E

COMMENTS:

FT: FUEL TYPE
MDL= METHOD DETECTION LIMIT
A=GASOLINE
B= KERSOENE WITH SOME UNKNOWN FUEL OIL
C= #2 FUEL OIL
D= #4 FUEL OIL
E= NO CALIBRATED FUEL TYPE DETECTED
F=KEROSENE
H= #6 FUEL OIL
P= CLIENT KNOWN FUEL PRODUCT
KW KEROSENE WEATHERED
PI= PAINT THINNER
MS= MINERAL SPIRITS

< = LESS THAN
J= 10 W LUBRICATING OIL
K= 20 W LUBRICATING OIL
L= 30W LUBRICATING OIL
M= 40 W LUBRICATING OIL
CW= #2 FUEL OIL WEATHERED
DW= #4 FUEL OIL WEATHERED
HW= #6 FUEL OIL, WEATHERED
ND = NOT DETECTED (CONC)
CS = CLIENT STANDARD
N = JET FUEL STANDARD
S= DIESEL
CT=COAL TAR

METALS

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: PMK Group SDG No.: P3425 Method Type: SW846

Sample ID: P3425-01 Client ID: GC-2

Contract: PMK Group Lab Code: CHEMED Case No.: SAS No.: P3425

Matrix: TCLP Date Received: 7/23/02 Level: LOW

% Solids:

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
40-38-2	Arsenic	45.0	ug/L	U		P	45.0	P1	P180502
40-39-3	Barium	268	ug/L	B		P	99.0	P1	P180502
7440-43-9	Cadmium	8.0	ug/L	U		P	8.0	P1	P180502
40-47-3	Chromium	14.0	ug/L	U		P	14.0	P1	P180502
7439-92-1	Lead	30.0	ug/L	U		P	30.0	P1	P180502
439-97-6	Mercury	2.0	ug/L	U		CV	2.0	CV1	080602A
82-49-2	Selenium	9.4	ug/L	B		P	9.0	P1	P180502
7440-22-4	Silver	37.0	ug/L	U		P	37.0	P1	P180502

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Chemtech Consulting Group

GENERAL CHEMISTRY
Analyses Data Sheet

SDG No.: P3425

Sample ID: P3425-01 Client ID: GC-2

Contract: PMK Group Date Collected: 7/23/02 Date Received: 7/23/02

Matrix: SOIL % Solids: 95.80

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Reactive Cyanide	7.3.3.2	< 10	mg/Kg	U		1	7/29/02
Reactive Sulfide	7.3.4.2	< 40.0	mg/Kg	U		1	7/29/02
Corrosivity (as pH)	EPA 9045C	7.4	pH			1	7/31/02
Ignitability	EPA 1010	No	Ignite			1	8/2/02

Comments:

CHEMTECH 284 Sheffield Street • Mountainside, NJ 07092 Phone: 908.789.8900 Fax: 908.789.8922

DATA PACKAGE FOR
VOLATILE ORGANICS
SEMI-VOLATILE ORGANICS
GC SEMI-VOLATILES
METALS
GENERAL CHEMISTRY

PROJECT NAME: Veterans Memorial Park

PMK GROUP
65 JACKSON DRIVE
CRANFORD, NJ 07016
9084978900

A FULL SERVICE ENVIRONMENTAL LABORATORY

CHEMTECH PROJECT NO. **P3702**
ATTENTION: **Devang Patel**

CHEMTECH

205 Campus Plaza 1 Raritan Center Edison, NJ 08837
Tel: 732-225-4111 Fax 732-225-4110

COVER PAGE

ProjectID: Veterans Memorial Park

Order P3702

CustomerName PMK Group

LAB SAMPLE NO.	CLIENT SAMPLE NO
P3702-01	TP-31
P3702-02	TP-33
P3702-03	TP-34
P3702-04	TP-6D
P3702-05	TP-6
P3702-06	TP-4
P3702-07	TP-4D
P3702-08	TP-13
P3702-09	TP-10
P3702-10	TP-10D
P3702-11	TB080902

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature: Carole Collins Name: CAROLE Collins

Date: 8/27/09 Title: QA/QC

NYDOH CERTIFICATION NO.11376

NJDEP CERTIFICATION NO. 12013

CHEMTECH

QA/QC DELIVERABLES CHECKLIST

Project Number: P3702

THIS FORM HAS BEEN COMPLETED BY CHEMTECH LABORATORY AND ACCOMPANIES ALL DATA DELIVERABLES PACKAGES.

The following laboratory deliverables are included in this analytical report. Any deviations from the accepted methodology and procedures, or performance values outside acceptable ranges are summarized in the Non- Conformance Summary.

		Yes	NA
I.	Report Cover Page, Laboratory Certification and Field Sample to Lab Sample ID Cross Reference	✓	
II.	Table of Contents	✓	
III.	Chain of Custody Documents	✓	
IV.	Methodology Summaries	✓	
V.	Laboratory Chronicle and Hold Time Checks	✓	
VI.	Non-Conformance Summary	✓	
VII.	Tabulated Analytical Results	✓	
VIII.	Initial and Continuing Calibration Information	✓	
IX.	Tune and Internal Standard Area Summaries (GC/MS)	✓	
X.	Quality Control Summary Reports	✓	
XI.	Surrogate Recovery Summary	✓	
XII.	Raw Data Chromatogram, Blank, Samples and QC when applicable	✓	
XIII.	Subcontract Data		✓

Carole Collins
QA/QC Data Reviewer

8/27/02
Date

☐ 110 Route 4
Englewood, NJ 07631
Phone: 201 566 7400 Fax: 201 767 [illegible]

☐ 284 Sheffield Street
Mountainside, NJ 07092
Telephone [illegible]

NYSDOH Certification No. 10624

NYSDOH Certification No. 11376
NJDEP Certification No. 20012

TABLE OF CONTENTS
PROJECT NUMBER: P3702NJ

	PAGE #
CHAIN OF CUSTODY	**07**
METHOD SUMMARIES	**12**
LABORATORY CHRONICLE	**15**
CASE NARRATIVE / NON - CONFORMANCE SUMMARY	**17**
VOALITILES ORGANIC DATA	**34**
ANALYTICAL RESULTS SUMMARY	35
TUNNING RESULTS SUMMARY	58
METHOD BLANK RESULTS SUMMARY	62
CALIBRATION SUMMARY	69
SURROGATE COMPOUND RECOVERY RESULTS SUMMARY	74
MS/MD RESULTS SUMMARY	77
INTERNAL STANDARDS	80
CHROMATOGRAMS	85
SEMI-VOALITILES ORGANIC DATA	**168**
ANALYTICAL RESULTS SUMMARY	169
TUNNING RESULTS SUMMARY	203
METHOD BLANK RESULTS SUMMARY	208
CALIBRATION SUMMARY	213
SURROGATE COMPOUND RECOVERY RESULTS SUMMARY	222
MS/MD RESULTS SUMMARY	226
INTERNAL STANDARDS	233
CHROMATOGRAMS	240
PESTICIDE/PCBS DATA	**412**
ANALYTICAL RESULTS SUMMARY	413
METHOD BLANK RESULTS SUMMARY	424
CALIBRATION SUMMARY	426
SURROGATE COMPOUND RECOVERY RESULTS SUMMARY	436
MS/MD RESULTS SUMMARY	438
RETENTION TIMES SUMMARY	441
CHROMATOGRAMS	444
PCBs DATA	**467**
ANALYTICAL RESULTS SUMMARY	468
METHOD BLANK RESULTS SUMMARY	482
CALIBRATION SUMMARY	484
SURROGATE COMPOUND RECOVERY RESULTS SUMMARY	515
MS/MD RESULTS SUMMARY	517
RETENTION TIMES SUMMARY	520
CHROMATOGRAMS	525

METALS DATA	**554**
ANALYTICAL RESULTS SUMMARY	555
METHOD BLANK RESULTS SUMMARY	566
CALIBRATION SUMMARY	578
ICP ICS RESULTS SUMMARY	590
SPIKED SAMPLE RESULTS SUMMARY	593
DUPLICATE SAMPLE RESULT SUMMARY	598
LABORATORY CONTROL SAMPLE REESULTS SUMMARY	603
SERIAL DILUTION RESULTS SUMMARY	606
GENERAL CHEMISTRY DATA	**608**
ANALYTICAL RESULTS SUMMARY	609
QC RESULTS	620
TOTAL NUMBER OF PAGES	**626**

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH JOB NO.: P3702

CHEMTECH QUOTE NO.:

CLIENT INFORMATION (REPORT TO BE SENT TO:)

COMPANY: PMK
ADDRESS: 65 Jackson Drive
CITY: Cranford STATE: NJ ZIP: 07016
ATTENTION: Devang Patel
PHONE: 908-497-8500 FAX: 908-497-8545

PROJECT INFORMATION

PROJECT NAME: Veterans Memorial Park
PROJECT NO.: 0502014
PROJECT MANAGER: Devang Patel
LOCATION: South Plainfield
PHONE: FAX:

BILLING INFORMATION

BILL TO: PO #:
ADDRESS: PMK
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: DAYS *
HARD COPY: Standard DAYS *
EDD: DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ NY STATE CATEGORY A
☐ RESULTS PLUS QC ☐ NY STATE CATEGORY B
☐ REGULATORY FORMAT, STATE:
☐ NEW JERSEY REDUCED DELIVERABLES
☐ CLP
☒ EDD FORMAT: Hazsite

ANALYSIS

1 PP+40 2 VOTIC 3 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1. 01	TP-31	Soil		x	8/9/02	1032	2	x	x								
2. 02	TP-33	Soil		x		11:20	2	x	x								
3. 03	TP-34	Soil		x		1138	2	x	x								
4. 04	TP-6d	Soil		x		12:10	2	x	x								
5. 05	TP-6	Soil		x		12:13	2	x	x								
6. 06	TP-4	Soil		x		13:15	2	x	x								
7. 07	TP-4d	Soil		x		13:20	2	x	x								
8. 08	TP-13	Soil				13:45	2	x	x								

← Specify Preservatives
A – HCl B – HNO_3
C – H_2SO_4 D – NaOH
E – ICE F – Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. [signature]	8/9/02 445	1. George Stefflos
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3. George Stefflos	DATE/TIME: 8/9/02 440	RECEIVED FOR LAB BY: 3. George Stefflos

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non-Compliant ☐ Temp. of Cooler 2.0
Comments:

Page 1 of 2

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☐ YES ☐ NO

Ver. 7/2001

WHITE – CHEMTECH COPY FOR RETURN TO CLIENT YELLOW – CHEMTECH COPY PINK – SAMPLER COPY

24498

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH JOB NO.: P3702

CHEMTECH QUOTE NO.:

CLIENT INFORMATION (REPORT TO BE SENT TO:)

COMPANY: PMK
ADDRESS: 65 Jackson Driv
CITY: CRANFORD STATE: NJ ZIP: 07016
ATTENTION: Devang Patel
PHONE: 908-497-8500 FAX: 908-497-8543

PROJECT INFORMATION

PROJECT NAME: Veterans Memorial
PROJECT NO.: 0502014
PROJECT MANAGER: Devang Patel
LOCATION: South Plainfield
PHONE: FAX:

BILLING INFORMATION

BILL TO: PMK PO #:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: DAYS *
HARD COPY: Standard DAYS *
EDD: DAYS *
* TO BE APPROVED BY CHEMTECH
** NORMAL TURNAROUND TIME - 14 DAYS

DATA DELIVERABLE INFORMATION

☐ RESULTS ONLY ☐ NY STATE CATEGORY A
☐ RESULTS PLUS QC ☐ NY STATE CATEGORY B
☐ REGULATORY FORMAT, STATE:
☒ NEW JERSEY REDUCED DELIVERABLES
☐ CLP
☒ EDD FORMAT: Excel

ANALYSIS

1: PP+40 2: VOC+10 3 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1. 09	TP-10	Soil		X	8/9/02	1432	2	X	X								
2. 10	TP-10d	↓		X	8/9/02	1442	2	X	X								
3. 11	TB080902	Aq			8/9/02		1		X								
4.																	
5.																	
6.																	
7.																	
8.																	

← Specify Preservatives
A – HCl B – HNO_3
C – H_2SO_4 D – NaOH
E – ICE F – Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. [signature]	8/9/02 4:35	George Stephens
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3. George Stephens	DATE/TIME: 8/9/02 4:40	RECEIVED FOR LAB BY: 3. George Stephens

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non-Compliant ☐ Temp. of Cooler 2.0
Comments:

Page 2 of 2

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☐ YES ☐ NO

7/2001

WHITE – CHEMTECH COPY FOR RETURN TO CLIENT YELLOW – CHEMTECH COPY PINK – SAMPLER COPY

24496

CHEMTECH

284 Sheffield Street Mountainside NJ 07092
Tel. 908-789-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.

CHEMTECH

284 Sheffield Street Mountainside NJ 07092
Tel. 908-789-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

B	If the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
U	If the analyte was analyzed for, but not detected.
E	The reported value is estimated because of the presence of interference
M	Duplicate injection precision not met.
N	Spiked sample recovery not within control limits.
S	The reported value was determined by the Method of Standard Addition (MSA).
W	Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while absorbance is less that 50% of spike absorbance.
*	Duplicate analysis not within control limits.
+	Correlation coefficient for the MSA is less than 0.995.
***	Entering "S", "W " or " +" is mutually exclusive. NO combination of these qualifiers can appear in the same field for an analyte.

M — Method qualifiers

- "P" for ICP instrument
- "A" for Flame AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for flame AA when Microwave Digestion is used
- "FM" for furnace AA when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for automated Cold Vapor AA
- "CA" for MIDI-Distillation Spectrophotometric
- "AS" for Semi -Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- "NR" for analyte not required to be analyzed

CHEMTECH

284 Sheffield Street, Mountainside 07092
Tel: 908-789-8900 Fax: 908-789-8922

METHODOLOGY

Volatile Organic by GC/MS
*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition
** Method 8260B

Semi-Volatile Organic by GC/MS
*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition
** Method 8270C

Semi-Volatile Extraction - Sonication Extraction
*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition
** Method 3550B

Organochlorine Pesticides & PCBs
*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition
**Method 8081/8082

Antimony
*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition
**Method 6010B

Arsenic
*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition
**Method 6010B

Beryllium
*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition
**Method 6010B

Cadmium
*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition
**Method 6010B

Chromium
*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition
**Method 6010B

Copper
*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition
**Method 6010B

Lead
*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition
**Method 6010B

Mercury
*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition
**Method 7471

Nickel
*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition
**Method 6010B

CHEMTECH

284 Sheffield Street, Mountainside 07092
Tel: 908-789-8900 Fax: 908-789-8922

Selenium

*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition
**Method 6010B

Silver

*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition
**Method 6010B

Thallium

*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition
**Method 6010B

Zinc

*Test Methods for Evaluating Solid Wastes, SW846, 3rd Edition
**Method 6010B

Phenolics

*EPA Methods for Chemical Analysis of Water and Wastes, March 1983
**Method 420.1

Cyanide

*Test Methods for Evaluating Solid Wastes, SW846, 3rd edition
**Method 9012

* Indicates reference
** Indicates Methods

CHEMTECH

284 Sheffield Street, Mountainside 07092
Tel: 908-789-8900 Fax: 908-789-8922

LABORATORY CHRONICLE

CLIENT: PMK GROUP
CLIENT PROJECT: VETERANS MEMORIAL PARK
DATE RECEIVED: 8/09/02
LABORATORY PROJECT: P3702

EXTRACTION DATE:	8/14/02	SEMI-VOLATILE ORGANIC
	8/14/02	PESTICIDES
	8/14/02	PCBs
	8/20/02	METALS
	8/15/02	MERCURY

SAMPLE DATE	ANALYSIS DATES	ANALYSIS
8/09/02	8/19,20/02	VOLATILE ORGANIC
8/09/02	8/20,21,22/02	SEMI-VOLATILE ORGANIC
8/09/02	8/19,20/02	PESTICIDES
8/09/02	8/19,20/02	PCBs
8/09/02	8/26/02	METALS
8/09/02	8/16/02	MERCURY
8/09/02	8/17/02	CYANIDE
8/09/02	8/20/02	PHENOLICS

PEER REVIEW CHECKLIST FOR GCMS VOA DATA

Fraction: VOC Project #: P3702

QA DATA: Sample Numbers:

ITEM	Completed
Check instrument log for samples in batch. Highlights.	✓
Make sure correct lab numbers are listed on all data.	✓
Check Chain of Custody and Login Sheet for project specific information.	✓
Check that all manual integrations are initialed and dated.	✓
TUNES:	
Check that the proper tune is included and that the appropriate lab #s are listed on the tune.	✓
Check that the tune meets the correct criteria.	✓
Check that all samples were run within 12 hours for 8260B and CLP 24 hours for 624	✓
BLANKS:	
Check quant report for compounds called and quantitation.	✓
Check if any compounds need to be flagged with a J.	✓
Check that blank meets contamination criteria.	✓
Check that appropriate lab numbers are reported on blank nontargeted summary sheet.	✓
Check blank nontargeted results for proper cas #, retention time, compound name, concentration against spectra.	✓
Check blank chromatograms to ensure that all peaks are accounted for.	✓
Check that all compounds not called are crossed off, initialed and dated on quantitation reports and tics.	✓
Check that spectra are included for all compounds called.	✓
CALIBRATION:	
Check that the proper initial and continuing calibration forms are included.	✓
Compare initial curves to continuing curve to make sure correct curves are included.	✓
Verify dates on curves.	✓
Verify that extra compound initial and continuing curves are included.	✓
Check that SPCCS and CCCS meet criteria on the initial and continuing calibrations	✓
Verify that a continuous calibration check is run every 12 hrs for 8260 and CLP, every 24hrs for 624 and every 8hrs for 524.	✓
Check that the criteria is met on the initial and continuing calibrations. 15% RSD for initial calibration and 30% for continuing calibration for 8260. 35% RSD and for continuing for 624 use table 5. For CLP use table on exhibit D (Up to 2 compounds allowed to fail.)	✓
Verify that the concentration of the CCC is varied	✓
SURROGATES:	
Check that surrogate recoveries are reported on appropriate form. (i.e. water, soil, sludge.)	✓
Check that surrogate recoveries meet QC limits listed on the form. Make sure values outside of limits are flagged and tallied.	✓
Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-analyzed to prove matrix interference).	✓
Verify surrogates reported to the quantitation reports.	✓

SPIKES:

Verify that the correct spike sample is being reported for that batch. ✓
Check that the spike recoveries are reported in the appropriate form (i.e. water, soil). ✓
Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied. ✓
Verify spike recoveries to quantitation reports. ✓
If any values outside of QC limits exist on MS/MSD, was Blank Spike used. ✓

Verify that the blank spike meets QC requirements (70-130%). ✓

Non-conformances Comments: _____

SAMPLES:

ITEM	Completed
Check quant report for targeted compounds called, verify quantitation (be sure to take moisture and dilutions into account).	✓
Verify that the largest 10 - 15 non-target peaks are called.	✓
Check to ensure that compounds which exceed the linear range have been Re-analyzed, diluted and quanted from the dilution.	✓
Check that reporting limits typical and if not (and the reason is not apparent) are footnoted.	✓
Verify reporting limits for extra compounds.	✓
Check nontargeted results for proper CAS #, concentration, retention time, compounds need to be flagged with B or J.	✓
Check that spectra are included for all compounds called.	✓
Check chromatograms to ensure that all peaks are accounted for.	✓
Check if any of the data requires a footnote.	✓
Check that the samples were run within their holding time.	✓

Non – Conformance Comments: _____

Peer Review Signature: [signature] Date: 8/21/2

TECHNICAL SUPERVISOR REVIEW:

ITEM	Completed
Check for compliance with the Method and project specific requirements.	✓
Check the report for completeness.	✓
Check the information in the case narrative.	✓
Check the results for reasonableness.	✓

Technical Supervisor Review Signature: Carole Collins Date: 8/27/02

CHEMTECH 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#:20012 : NEW YORK LAB ID#: 11376

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: P3702 MATRIX: Soil

METHOD: 8260

	NA	NO	YES
1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)			✓
2. GC/MS Tuning Specifications BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)			✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series			✓
4. GC/MS Calibration - Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series.			✓
5. GC/MS Calibration Requirements a. Calibration Check Compounds for 8260 and CLP			✓
b. System Performance Check Compounds for 8260 and CLP			✓

8260 CALIBRATION CRITERIA

SPCC Compounds	MIN RF	CCC Compounds
Chloromethane	0.1	1,1-Dichloroethene
1,1-Dichloroethane	0.1	Chloroform
Bromoform	0.1	1,2-Dichloropropane
Chlorobenzene	0.3	Toluene
1,1,2,2-Tetrachloroethane	0.3	Ethylbenzene
		Vinyl chloride

For CCC compounds Initial Calibration Criteria – RSD less than or equal to 30%
For CCC compounds Continuing Calibration Criteria - %D less than or equal to 20%

6. Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
7. Surrogate Recoveries Meet Criteria			✓

If not met, list those compounds and their recoveries which fall outside the acceptable ranges.

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY(CONTINUED)

	NA	NO	YES
8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria			✓

If not met, list those compounds and their recoveries which fall outside the acceptable range.

9. Internal Standard Area/Retention Time Shift Meet Criteria			✓

Comments:

10. Analysis Holding Time Met			✓

If not met, list number of days exceeded for each sample:

ADDITIONAL COMMENTS:

Analyst: [signature] Date: 08.21.02

QA REVIEW: Carole Collins Date: 8/27/02

CHEMTECH 284 Sheffield Street, Mountainside New Jersey 07092
NEW JERSEY LAB ID#:20012 : NEW YORK LAB ID#: 11376

GC/MS SEMI-VOLATILE ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: P3702 MATRIX: Soil

METHOD: 8270

	NA	NO	YES
1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)			✓
2. GC/MS Tuning Specifications. DFTPP Meet Criteria Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)			✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series			✓
4. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series			✓
5. GC/MS Calibration Requirements			
a. Calibration Check Compounds for 8270 and CLP			✓
b. System Performance Check Compounds for 8270 and CLP			✓

8270 CALIBRATION CRITERIA

SPCC Compounds	MINRF
N-nitroso-di-n-propylamine	0.050
Hexachlorocyclopentadiene	0.050
2,4-Dinitrophenol	0.050
4-Nitrophenol	0.050

CCC Compounds Base/Neutral Fraction	Acid Fraction
Acenaphthene	4-Chloro-3-methylphenol
1,4-Dichlorobenzene	2,4-Dichlorophenol
Hexachlorobutadiene	2-Nitrophenol
Diphenylamine	Phenol
Di-n-octyl phthalate	Pentachlorophenol
Fluoranthene	2,4,6-Trichlorophenol
Benzo(a)pyrene	

For CCC compounds Initial Calibration Criteria – RSD less than or equal to 30%
For CCC compounds Continuing Calibration Criteria - %D less than or equal to 20%

6. Blank Contamination - If yes, list compounds and concentrations in each blank: ___ ___ ✓

a. B/N Fraction Bis(2-ethylhexyl)phthalate Present at 2.87 ng/ml
b. Acid Fraction Concentration on BD001872.D.

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

	NA	NO	YES
7. Surrogate Recoveries Meet Criteria		✓	

If not met, list those compounds and their recoveries which fall outside the acceptable ranges.

a. B/N Fraction See Summary form # 2

b. Acid Fraction

	NA	NO	YES
8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria		✓	

If not met, list those compounds and their recoveries which fall outside the acceptable range.

a. B/N Fraction See Summary form #3

b. Acid Fraction

	NA	NO	YES
9. Internal Standard Area/Retention Time Shift Meet Criteria		✓	

Comments:

See Summary form #8
Re-run a dilution reported

	NA	NO	YES
10. Extraction Holding Time Met			✓

If not met, list number of days exceeded for each sample:

	NA	NO	YES
11. Analysis Holding Time Met			✓

If not met, list number of days exceeded for each sample:

ADDITIONAL COMMENTS:

Alice — Analyst — Date 08/23/02

Carole Collins — QA REVIEW — Date 8/27/02

PEER REVIEW CHECKLIST FOR GCMS SEMI-VOA DATA

Fraction: 8Voc Project #: P3702

Sample Numbers: 1-10

QA DATA:

ITEM	Completed
Check instrument log for samples in batch. Highlights.	✓
Make sure correct lab numbers are listed on all data.	✓
Check Chain of Custody and Login Sheet for project specific information.	✓
Check that all manual integrations are initialed and dated.	✓
TUNES:	
Check that the proper tune is included and that the appropriate lab #s are listed on the tune.	✓
Check that the tune meets the correct criteria.	✓
Check that all samples were run within 12 hours for 8270 and CLP, 24 hours for 625.	✓
BLANKS:	
Check quant report for compounds called and quantitation.	✓
Check if any compounds need to be flagged with a J.	✓
Check that blank meets contamination criteria.	✓
Check blank nontargeted results for proper CAS #, retention time, compound name, mw, concentration against spectra.	✓
Check blank chromatograms to ensure that all peaks are accounted for.	✓
Check that all compounds not called are crossed off, initialed and dated on quantitation reports and tics.	✓
Check that spectra are included for all compounds called.	✓
CALIBRATION:	
Check that the proper initial and continuing calibration forms are included.	✓
Compare initial curves to continuing curve to make sure correct curves are included.	✓
Verify dates on curves.	✓
Verify that extra compound initial and continuing curves are included.	✓
Check that SPCCS and CCCS meet criteria on the initial and continuing calibrations.	✓
SURROGATES:	
Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).	✓
Check that surrogate recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.	✓
Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-extracted and re-analyzed to prove matrix interference).	✓
Verify surrogates reported to the quantitation reports.	✓
SPIKES:	
Verify that the correct spike sample is being reported for that batch.	✓
Check that the spike recoveries are reported in the appropriate form (i.e. water, soil).	✓
Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.	✓
Verify spike recoveries to quantitation reports.	✓
If any values outside of QC limits exist on MS/MSD, was Blank Spike used.	✓

Non-conformances / Comments:

SAMPLES:

ITEM	Completed
Check that all manual integrations are initialed and dated.	✓
Check quant report for targeted compounds called and randomly verify quantitation (be sure to take moisture and dilutions into account).	✓
Verify that the appropriate number and largest non-target peaks are called.	✓
Check to ensure that compounds which exceed the linear range have been diluted re-analyzed, and quanted from the dilution.	✓
Check that reporting limits are typical and if not (reason is not apparent) are footnoted.	✓
Verify reporting limits for extra compounds.	✓
Check nontargeted results for proper concentration, CAS #, retention time, compounds need to be flagged with B or J.	✓
Check that spectra are included for all compounds called.	✓
Check chromatograms to ensure that all peaks are accounted for.	✓
Check if any of the data requires a footnote.	✓
Check that the samples were run / extracted within their holding time.	✓

Non – Conformance / Comments:

Peer Review Signature: Kupa Date: 8/26/02

TECHNICAL SUPERVISOR REVIEW:

ITEM	Completed
Check for compliance with the Method and project specific requirements.	✓
Check the report for completeness.	✓
Check the information in the case narrative.	✓
Check the results for reasonableness.	✓

Technical Supervisor Review Signature: Carole Collins Date: 8/27/02

chklst-semi-voa-rev1.doc

CHEMTECH 284 Sheffield Street. Mountainside New Jersey 07092

NEW JERSEY LAB ID#:20012 : NEW YORK LAB ID#: 11376

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT LAB NUMBER: P3707 MATRIX: SOLID METHOD: 8081

	YES	NA	NO
1. Chromatograms Labeled/Compounds Identified.	✓		
2. Standards Summary Submitted	✓		
3. Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD	✓		
4. Blank Contamination - If yes, list compounds and concentrations in each blank:			✓
5. Surrogate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable ranges.	✓		
6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. If not met, list those compounds and their recoveries which fall outside the acceptable range. matrix Interference			✓
7. Retention Time Shift Meet Criteria (if applicable)	✓		
8. Extraction Holding Time Met If not met, list number of days exceeded for each sample.	✓		
9 Analysis Holding Time Met If not met, list those compounds and their recoveries which fall outside the acceptable range.	✓		

Additional Comments:

Analyst [signature] Date Aug 20, 2002

QA REVIEW Carole Collins Date 8/27/02

Document Control # A3040027

Page 1 of 1

NONCONGC A3040027.DOC

PEER REVIEW CHECKLIST FOR GC DATA

Fraction: Bcl Project #: B3702

Sample Numbers: B3702 17010

QA DATA:

ITEM	Completed
Check instrument log for samples in batch. Highlights.	✓
Make sure correct lab numbers are listed on all data.	✓
Check Chain Custody and Login Sheet for project specific information.	✓
Check that all manual integrations are initialed and dated.	✓
Verify that the retention time of every peak of interest meet the criteria for window (RT ±3 times the standard deviation of the mean absolute value or default to 0.03 minutes.)	
BLANKS:	✓
Check quant report for compounds called and quantitation.	✓
Check if any compounds need to be flagged with a J.	✓
Check that blank meets contamination criteria.	✓
Check blank chromatograms to ensure that all peaks are accounted for.	✓
Check that all compounds not called are crossed off, initialed and dated on quantitation reports.	✓
CALIBRATION:	
Check that the proper initial and continuing calibration forms are included.	✓
Compare initial curves to continuing curve to make sure correct curves are included. Verify dates on curves.	✓
Verify that extra compound initial calibration and continuing are included.	✓
Verify that a continuous calibration check is run every 12 hrs for 8000 series and CLP and every 24hrs for 600 series	✓
Check that the criteria is met on the initial and continuing calibrations. 20% RSD for initial calibration and 15% for continuing calibration for 8000 series, 25% for CLP and 10% RSD and Table on SOP for continuing for 600 series	✓
Verify a closing check is analyzed for each analytical sequence	✓
Verify that the concentration of the CCC is varied	✓
SURROGATES:	
Check that surrogate recoveries are reported on appropriate form (i.e. water, soil, sludge).	✓
Check that surrogate recoveries meet QC limits listed on the form. Make sure values outside of limits are flagged and tallied.	✓
Check that appropriate action was taken for surrogate recoveries which did not meet QC criteria (samples are re-analyzed to prove matrix interference).	✓
Verify surrogates reported to the quantitation reports.	✓
SPIKES:	
Check that appropriate sample is on the spike recovery form.	✓
Verify that the correct spike sample is being reported for that batch.	✓
Check that the spike recoveries are reported on the appropriate form (i.e. water, soil).	✓
Check that spike recoveries meet QC limits. Make sure values outside of limits are flagged and tallied.	✓
Verify spike recoveries to quantitation reports.	✓
Verify that a blank spike was analyzed for each batch of 20 samples.	✓
Verify that the blank spike meets QC requirements (70-130%).	✓
If any values outside of QC limits exist on MS/MSD, was Blank Spike used?	✓

Non-conformances / Comments: _____

SAMPLES:

ITEM	Completed
Check that all manual integrations are initialed , dated and justified.	✓
Check that the correct sample matrix and units are on the result form.	✓
Check quant report for targeted compounds called and verify quantitation (be sure to take moisture and dilutions into account).	✓
Check to ensure that compounds which exceeds the linear range have been, diluted, re-analyzed, and quanted from the dilution.	✓
Check that reporting limits are typical and if not (reason is not apparent) are footnoted.	✓
Verify reporting limits for extra compounds.	✓
Check chromatograms to ensure that all peaks are accounted for.	✓
Check if any of the data requires a footnote.	✓
Check that the samples were analyzed / extracted within their holding time.	✓

Non – Conformance / Comments: _____

Peer Review Signature: [signature] Date: Aug 20, 2002 08/20/02

TECHNICAL SUPERVISOR REVIEW:

ITEM	Completed
Check for compliance with the Method and project specific requirements.	✓
Check the report for completeness.	✓
Check the information in the case narrative.	✓
Check the results for reasonableness.	✓

Technical Supervisor Review Signature: Carole Collins Date: 8/27/02

Chemtech Consulting Group

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-03 **Client ID:** TP-34

Date Collected: 8/9/02 **Date Received:** 8/9/02
Date Analyzed: 8/20/02 **Matrix:** SOIL
Date Extracted: 8/14/02 **File ID:** BD001859.D
Dilution: 1 **Instrument ID:** 5971D
Analytical Method: 8270 **Analytical Run ID:** 1
Sample Wt/Wol: 30.3 **Extract Vol:** 1000
Injection Vol: 2 **% Moisture:** 15
Associated Blank: PB081402-08B

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
n-Nitrosodimethylamine	< 38	U	380	38	ug/Kg
Phenol	< 38	U	380	38	ug/Kg
bis(2-Chloroethyl)ether	< 46	U	380	46	ug/Kg
2-Chlorophenol	< 42	U	380	42	ug/Kg
1,4-Dichlorobenzene	< 38	U	380	38	ug/Kg
1,3-Dichlorobenzene	< 46	U	380	46	ug/Kg
1,2-Dichlorobenzene	< 38	U	380	38	ug/Kg
Benzyl Alcohol	< 38	U	380	38	ug/Kg
2-Methylphenol	< 38	U	380	38	ug/Kg
2,2'-oxybis(1-chloropropane)	< 38	U	380	38	ug/Kg
3+4-Methylphenols	< 69	U	380	69	ug/Kg
N-Nitroso-di-n-propylamine	< 38	U	380	38	ug/Kg
Hexachloroethane	< 42	U	380	42	ug/Kg
Nitrobenzene	< 38	U	380	38	ug/Kg
Isophorone	< 38	U	380	38	ug/Kg
2-Nitrophenol	< 42	U	380	42	ug/Kg
2,4-Dimethylphenol	< 88	U	380	88	ug/Kg
bis(2-Chloroethoxy)methane	< 38	U	380	38	ug/Kg
2,4-Dichlorophenol	< 50	U	380	50	ug/Kg
1,2,4-Trichlorobenzene	< 46	U	380	46	ug/Kg
Naphthalene	< 46	U	380	46	ug/Kg
4-Chloroaniline	< 46	U	380	46	ug/Kg
Hexachlorobutadiene	< 58	U	380	58	ug/Kg
4-Chloro-3-methylphenol	< 42	U	380	42	ug/Kg
Hexachlorocyclopentadiene	< 150	U	380	150	ug/Kg
2,4,6-Trichlorophenol	< 38	U	380	38	ug/Kg
2,4,5-Trichlorophenol	< 38	U	970	38	ug/Kg
2-Chloronaphthalene	< 46	U	380	46	ug/Kg
Dimethylphthalate	< 38	U	380	38	ug/Kg
Acenaphthylene	< 46	U	380	46	ug/Kg
2,6-Dinitrotoluene	< 38	U	380	38	ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID:	P3702-03	Client ID:	TP-34
Date Collected:	8/9/02	Date Received:	8/9/02
Date Analyzed:	8/20/02	Matrix:	SOIL
Date Extracted:	8/14/02	File ID:	BD001859.D
Dilution:	1	Instrument ID:	5971D
Analytical Method:	8270	Analytical Run ID:	1
Sample Wt/Wol:	30.3	Extract Vol:	1000
Injection Vol:	2	% Moisture:	15
Associated Blank:	PB081402-08B		

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
Acenaphthene	< 46	U	380	46	ug/Kg
2,4-Dinitrophenol	< 77	U	970	77	ug/Kg
4-Nitrophenol	< 42	U	970	42	ug/Kg
2,6-Dinitrotoluene	< 42	U	380	42	ug/Kg
Diethylphthalate	< 38	U	380	38	ug/Kg
4-Chlorophenyl-phenylether	< 46	U	380	46	ug/Kg
Fluorene	< 42	U	380	42	ug/Kg
4,6-Dinitro-2-methylphenol	< 46	U	970	46	ug/Kg
N-Nitrosodiphenylamine	< 77	U	380	77	ug/Kg
Azobenzene	< 42	U	380	42	ug/Kg
4-Bromophenyl-phenylether	< 50	U	380	50	ug/Kg
Hexachlorobenzene	< 42	U	380	42	ug/Kg
Pentachlorophenol	< 73	U	970	73	ug/Kg
Phenanthrene	48	J	380	38	ug/Kg
Anthracene	< 50	U	380	50	ug/Kg
Di-n-butylphthalate	< 46	U	380	46	ug/Kg
Fluoranthene	110	J	380	38	ug/Kg
Benzidine	< 42	U	380	42	ug/Kg
Pyrene	140	J	380	38	ug/Kg
Butylbenzylphthalate	< 38	U	380	38	ug/Kg
3,3'-Dichlorobenzidine	< 38	U	380	38	ug/Kg
Benzo(a)anthracene	69	J	380	38	ug/Kg
Chrysene	71	J	380	62	ug/Kg
Bis(2-Ethylhexyl)phthalate	190	JB	380	38	ug/Kg
Di-n-octyl phthalate	< 58	U	380	58	ug/Kg
Benzo(b)fluoranthene	61	J	380	38	ug/Kg
Benzo(k)fluoranthene	100	J	380	100	ug/Kg
Benzo(a)pyrene	75	J	380	58	ug/Kg
Indeno(1,2,3-cd)pyrene	< 62	U	380	62	ug/Kg
Dibenz(a,h)anthracene	< 58	U	380	58	ug/Kg
Benzo(g,h,i)perylene	50	U	380	50	ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID:	P3702-03	**Client ID:**	TP-34
Date Collected:	8/9/02	**Date Received:**	8/9/02
Date Analyzed:	8/20/02	**Matrix:**	SOIL
Date Extracted:	8/14/02	**File ID:**	BD001859.D
Dilution:	1	**Instrument ID:**	5971D
Analytical Method:	8270	**Analytical Run ID:**	1
Sample Wt/Wol:	30.3	**Extract Vol:**	1000
Injection Vol:	2	**% Moisture:**	15
Associated Blank:	PB081402-08B		

Parameter	Concentration	C	RDL	MDL	Units
SURROGATES					
2-Fluorophenol	256.17	85 %	25 - 121		SPK: 300
Phenol-d5	228.78	76 %	24 - 113		SPK: 300
Nitrobenzene-d5	151.77	76 %	23 - 120		SPK: 200
2-Fluorobiphenyl	161.38	81 %	30 - 115		SPK: 200
2,4,6-Tribromophenol	285.01	95 %	19 - 122		SPK: 300
Terphenyl-d14	283.69	142 %	18 - 137		SPK: 200
INTERNAL STANDARDS					
1,4-Dichlorobenzene-d4	41121	5.58			
Naphthalene-d8	121947	8.02			
Acenaphthene-d10	88252	11.72			
Phenanthrene-d10	131028	14.90			
Chrysene-d12	78939	20.69			
Perylene-d12	63402	23.63			
TENTITIVE IDENTIFIED COMPOUNDS					
[illegible]P	7400	A	3.35		ug/Kg
Hexadecanoic acid	370	JB	16.40		ug/Kg
Naphthalene, 1,2,3,5,6,7,8,8a-octah	780	J	25.49		ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-04 **Client ID:** TP-6D

Date Collected: 8/9/02 **Date Received:** 8/9/02
Date Analyzed: 8/20/02 **Matrix:** SOIL
Date Extracted: 8/14/02 **File ID:** BD001861.D
Dilution: 1 **Instrument ID:** 5971D
Analytical Method: 8270 **Analytical Run ID:** 1
Sample Wt/Wol: 30.2 **Extract Vol:** 1000
Injection Vol: 2 **% Moisture:** 26
Associated Blank: PB081402-08B

rameter	Concentration	C	RDL	MDL	Units
TARGETS					
Nitrosodimethylamine	< 44	U	440	44	ug/Kg
enol	< 44	U	440	44	ug/Kg
bis(2-Chloroethyl)ether	< 53	U	440	53	ug/Kg
Chlorophenol	< 49	U	440	49	ug/Kg
,2-Dichlorobenzene	< 44	U	440	44	ug/Kg
1,3-Dichlorobenzene	< 53	U	440	53	ug/Kg
-Dichlorobenzene	< 44	U	440	44	ug/Kg
Benzyl Alcohol	< 44	U	440	44	ug/Kg
2-Methylphenol	< 44	U	440	44	ug/Kg
'-oxybis(1-chloropropane)	< 44	U	440	44	ug/Kg
3+4-Methylphenols	< 80	U	440	80	ug/Kg
N-Nitroso-di-n-propylamine	< 44	U	440	44	ug/Kg
xachloroethane	< 49	U	440	49	ug/Kg
Nitrobenzene	< 44	U	440	44	ug/Kg
phorone	< 44	U	440	44	ug/Kg
Nitrophenol	< 49	U	440	49	ug/Kg
2,4-Dimethylphenol	< 100	U	440	100	ug/Kg
(2-Chloroethoxy)methane	< 44	U	440	44	ug/Kg
-Dichlorophenol	< 58	U	440	58	ug/Kg
,2,4-Trichlorobenzene	< 53	U	440	53	ug/Kg
phthalene	< 53	U	440	53	ug/Kg
-Chloroaniline	< 53	U	440	53	ug/Kg
Hexachlorobutadiene	< 66	U	440	66	ug/Kg
Chloro-3-methylphenol	< 49	U	440	49	ug/Kg
Hexachlorocyclopentadiene	< 170	U	440	170	ug/Kg
4,6-Trichlorophenol	< 44	U	440	44	ug/Kg
,5-Trichlorophenol	< 44	U	1100	44	ug/Kg
-Chloronaphthalene	< 53	U	440	53	ug/Kg
methylphthalate	< 44	U	440	44	ug/Kg
naphthylene	< 53	U	440	53	ug/Kg
,6-Dinitrotoluene	< 44	U	440	44	ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-04

Client ID: TP-6D

Date Collected: 8/9/02
Date Analyzed: 8/20/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8270
Sample Wt/Wol: 30.2
Injection Vol: 2
Associated Blank: PB081402-08B

Date Received: 8/9/02
Matrix: SOIL
File ID: BD001861.D
Instrument ID: 5971D
Analytical Run ID: 1
Extract Vol: 1000
% Moisture: 26

rameter	Concentration	C	RDL	MDL	Units
TARGETS					
cenaphthene	< 53	U	440	53	ug/Kg
4-Dinitrophenol	< 89	U	1100	89	ug/Kg
4-Nitrophenol	< 49	U	1100	49	ug/Kg
4-Dinitrotoluene	< 49	U	440	49	ug/Kg
ethylphthalate	< 44	U	440	44	ug/Kg
4-Chlorophenyl-phenylether	< 53	U	440	53	ug/Kg
uorene	< 49	U	440	49	ug/Kg
,5-Dinitro-2-methylphenol	< 53	U	1100	53	ug/Kg
N-Nitrosodiphenylamine	< 89	U	440	89	ug/Kg
zobenzene	< 48	U	440	48	ug/Kg
-Bromophenyl-phenylether	< 58	U	440	58	ug/Kg
Hexachlorobenzene	< 49	U	440	49	ug/Kg
ntachlorophenol	< 84	U	1100	84	ug/Kg
Phenanthrene	150	J	440	44	ug/Kg
nthracene	< 58	U	440	58	ug/Kg
-n-butylphthalate	< 53	U	440	53	ug/Kg
Fluoranthene	290	J	440	44	ug/Kg
nzidine	< 48	U	440	48	ug/Kg
rene	350	J	440	44	ug/Kg
Butylbenzylphthalate	< 44	U	440	44	ug/Kg
'-Dichlorobenzidine	< 44	U	440	44	ug/Kg
nzo(a)anthracene	140	J	440	44	ug/Kg
Chrysene	190	J	440	71	ug/Kg
(2-Ethylhexyl)phthalate	82	JB	440	44	ug/Kg
-n-octyl phthalate	< 66	U	440	66	ug/Kg
Benzo(b)fluoranthene	140	J	440	44	ug/Kg
nzo(k)fluoranthene	140	J	440	120	ug/Kg
Benzo(a)pyrene	210	J	440	66	ug/Kg
ndeno(1,2,3-cd)pyrene	< 71	U	440	71	ug/Kg
benz(a,h)anthracene	< 66	U	440	66	ug/Kg
Benzo(g,h,i)perylene	98	J	440	58	ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID:	P3702-04	Client ID:	TP-6D
Date Collected:	8/9/02	Date Received:	8/9/02
Date Analyzed:	8/20/02	Matrix:	SOIL
Date Extracted:	8/14/02	File ID:	BD001861.D
Dilution:	1	Instrument ID:	5971D
Analytical Method:	8270	Analytical Run ID:	1
Sample Wt/Wol:	30.2	Extract Vol:	1000
Injection Vol:	2	% Moisture:	26
Associated Blank:	PB081402-08B		

Parameter	Concentration	C	RDL	MDL	Units
SURROGATES					
2-Fluorophenol	296.06	99 %	25 - 121		SPK: 300
Phenol-d5	240.88	80 %	24 - 113		SPK: 300
Nitrobenzene-d5	158.91	79 %	23 - 120		SPK: 200
2-Fluorobiphenyl	179.09	90 %	30 - 115		SPK: 200
2,4,6-Tribromophenol	287.47	96 %	19 - 122		SPK: 300
Terphenyl-d14	290.26	145 %	18 - 137		SPK: 200
INTERNAL STANDARDS					
1,4-Dichlorobenzene-d4	41415	5.57			
Naphthalene-d8	121437	8.02			
Acenaphthene-d10	86303	11.71			
Phenanthrene-d10	132300	14.89			
Chrysene-d12	79449	20.69			
Perylene-d12	53219	23.63			
TENTITIVE IDENTIFIED COMPOUNDS					
4-CP	8600	A	3.35		ug/Kg
Hexadecanoic acid	450	JB	16.40		ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID:	P3702-05	Client ID:	TP-6
Date Collected:	8/9/02	Date Received:	8/9/02
Date Analyzed:	8/21/02	Matrix:	SOIL
Date Extracted:	8/14/02	File ID:	BD001862.D
Dilution:	1	Instrument ID:	5971D
Analytical Method:	8270	Analytical Run ID:	1
Sample Wt/Wol:	30.1	Extract Vol:	1000
Injection Vol:	2	% Moisture:	18
Associated Blank:	PB081402-08B		

Parameter	Concentration	C	RDL	MDL	Units
SURROGATES					
2-Fluorophenol	293.22	98 %	25 - 121		SPK: 300
Phenol-d5	257.44	86 %	24 - 113		SPK: 300
Nitrobenzene-d5	178.64	89 %	23 - 120		SPK: 200
2-Fluorobiphenyl	184.61	92 %	30 - 115		SPK: 200
2,4,6-Tribromophenol	308.26	103 %	19 - 122		SPK: 300
Terphenyl-d14	290.64	145 %	18 - 137		SPK: 200
INTERNAL STANDARDS					
1,4-Dichlorobenzene-d4	42489	5.57			
Naphthalene-d8	121018	8.02			
Acenaphthene-d10	89430	11.71			
Phenanthrene-d10	136518	14.89			
Chrysene-d12	77021	20.68			
Perylene-d12	37648	23.65			
TENTITIVE IDENTIFIED COMPOUNDS					
CBP	7800	A	3.35		ug/Kg
Hexadecanoic acid	420	JB	16.40		ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID:	P3702-06	Client ID:	TP-4
Date Collected:	8/9/02	Date Received:	8/9/02
Date Analyzed:	8/21/02	Matrix:	SOIL
Date Extracted:	8/14/02	File ID:	BD001863.D
Dilution:	1	Instrument ID:	5971D
Analytical Method:	8270	Analytical Run ID:	1
Sample Wt/Wol:	30.0	Extract Vol:	1000
Injection Vol:	2	% Moisture:	24
Associated Blank:	PB081402-08B		

rameter	Concentration	C	RDL	MDL	Units
TARGETS					
Nitrosodimethylamine	< 43	U	430	43	ug/Kg
enol	< 43	U	430	43	ug/Kg
bis(2-Chloroethyl)ether	< 52	U	430	52	ug/Kg
Chlorophenol	< 48	U	430	48	ug/Kg
1,2-Dichlorobenzene	< 43	U	430	43	ug/Kg
1,3-Dichlorobenzene	< 52	U	430	52	ug/Kg
l-Dichlorobenzene	< 43	U	430	43	ug/Kg
Benzyl Alcohol	< 43	U	430	43	ug/Kg
Methylphenol	< 43	U	430	43	ug/Kg
'-oxybis(1-chloropropane)	< 43	U	430	43	ug/Kg
3+4-Methylphenols	< 78	U	430	78	ug/Kg
Nitroso-di-n-propylamine	< 43	U	430	43	ug/Kg
xachloroethane	< 48	U	430	48	ug/Kg
Nitrobenzene	< 43	U	430	43	ug/Kg
phorone	< 43	U	430	43	ug/Kg
Nitrophenol	< 48	U	430	48	ug/Kg
2,4-Dimethylphenol	< 100	U	430	100	ug/Kg
(2-Chloroethoxy)methane	< 43	U	430	43	ug/Kg
-Dichlorophenol	< 56	U	430	56	ug/Kg
2,4-Trichlorobenzene	< 52	U	430	52	ug/Kg
phthalene	< 52	U	430	52	ug/Kg
Chloroaniline	< 52	U	430	52	ug/Kg
Hexachlorobutadiene	< 65	U	430	65	ug/Kg
Chloro-3-methylphenol	< 48	U	430	48	ug/Kg
Hexachlorocyclopentadiene	< 160	U	430	160	ug/Kg
4,6-Trichlorophenol	< 43	U	430	43	ug/Kg
,5-Trichlorophenol	< 43	U	1100	43	ug/Kg
-Chloronaphthalene	< 52	U	430	52	ug/Kg
methylphthalate	< 43	U	430	43	ug/Kg
enaphthylene	120	J	430	52	ug/Kg
,6-Dinitrotoluene	< 43	U	430	43	ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID:	P3702-06	Client ID:	TP-4
Date Collected:	8/9/02	Date Received:	8/9/02
Date Analyzed:	8/21/02	Matrix:	SOIL
Date Extracted:	8/14/02	File ID:	BD001863.D
Dilution:	1	Instrument ID:	5971D
Analytical Method:	8270	Analytical Run ID:	1
Sample Wt/Wol:	30.0	Extract Vol:	1000
Injection Vol:	2	% Moisture:	24
Associated Blank:	PB081402-08B		

rameter	Concentration	C	RDL	MDL	Units
TARGETS					
enaphthene	< 52	U	430	52	ug/Kg
-Dinitrophenol	< 87	U	1100	87	ug/Kg
4-Nitrophenol	< 48	U	1100	48	ug/Kg
-Dinitrotoluene	< 48	U	430	48	ug/Kg
ethylphthalate	< 43	U	430	43	ug/Kg
4-Chlorophenyl-phenylether	< 52	U	430	52	ug/Kg
lorene	< 48	U	430	48	ug/Kg
,6-Dinitro-2-methylphenol	< 52	U	1100	52	ug/Kg
N-Nitrosodiphenylamine	< 87	U	430	87	ug/Kg
obenzene	< 47	U	430	47	ug/Kg
4-Bromophenyl-phenylether	< 56	U	430	56	ug/Kg
Hexachlorobenzene	< 48	U	430	48	ug/Kg
ntachlorophenol	< 82	U	1100	82	ug/Kg
Phenanthrene	360	J	430	43	ug/Kg
thracene	130	J	430	56	ug/Kg
n-butylphthalate	140	J	430	52	ug/Kg
luoranthene	970		430	43	ug/Kg
nzidine	< 47	U	430	47	ug/Kg
ene	1200		430	43	ug/Kg
Butylbenzylphthalate	900		430	43	ug/Kg
-Dichlorobenzidine	< 43	U	430	43	ug/Kg
nzo(a)anthracene	440		430	43	ug/Kg
hrysene	700		430	69	ug/Kg
2-Ethylhexyl)phthalate	5200	EB	430	43	ug/Kg
-n-octyl phthalate	< 65	U	430	65	ug/Kg
enzo(b)fluoranthene	580		430	43	ug/Kg
nzo(k)fluoranthene	900		430	110	ug/Kg
enzo(a)pyrene	700		430	65	ug/Kg
deno(1,2,3-cd)pyrene	120	J	430	69	ug/Kg
enz(a,h)anthracene	< 65	U	430	65	ug/Kg
enzo(g,h,i)perylene	240	J	430	56	ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID:	P3702-06	Client ID:	TP-4
Date Collected:	8/9/02	Date Received:	8/9/02
Date Analyzed:	8/21/02	Matrix:	SOIL
Date Extracted:	8/14/02	File ID:	BD001863.D
Dilution:	1	Instrument ID:	5971D
Analytical Method:	8270	Analytical Run ID:	1
Sample Wt/Wol:	30.0	Extract Vol:	1000
Injection Vol:	2	% Moisture:	24
Associated Blank:	PB081402-08B		

Parameter	Concentration	C	RDL	MDL	Units
SURROGATES					
2-Fluorophenol	292.61	98 %	25 - 121		SPK: 300
Phenol-d5	239.13	80 %	24 - 113		SPK: 300
Nitrobenzene-d5	168.9	84 %	23 - 120		SPK: 200
2-Fluorobiphenyl	173.98	87 %	30 - 115		SPK: 200
2,4,6-Tribromophenol	308.79	103 %	19 - 122		SPK: 300
Terphenyl-d14	269.09	135 %	18 - 137		SPK: 200
INTERNAL STANDARDS					
Naphthalene-d8	128896	8.01			
Acenaphthene-d10	97255	11.71			
Phenanthrene-d10	149576	14.89			
Chrysene-d12	86524	20.71			
Perylene-d12	33690	23.69			
TENTITIVE IDENTIFIED COMPOUNDS					
PCP	3900	A	3.34		ug/Kg
Sulfur, mol. (S8)	600	J	17.30		ug/Kg
Anthracene, 9-dodecyltetradecahyd	880	J	24.39		ug/Kg
Abietis-20-en-16-ol, (16.beta.,18.alpha	840	J	24.89		ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-06DL

Client ID: TP-4DL

Date Collected: 8/9/02
Date Analyzed: 8/22/02
Date Extracted: 8/14/02
Dilution: 5
Analytical Method: 8270
Sample Wt/Wol: 30.0
Injection Vol: 2
Associated Blank: PB081402-08B

Date Received: 8/9/02
Matrix: SOIL
File ID: BD001896.D
Instrument ID: 5971D
Analytical Run ID: 1
Extract Vol: 1000
% Moisture: 24

rameter	Concentration	C	RDL	MDL	Units
TARGETS					
Nitrosodimethylamine	< 220	U	2200	220	ug/Kg
enol	< 220	U	2200	220	ug/Kg
bis(2-Chloroethyl)ether	< 260	U	2200	260	ug/Kg
Chlorophenol	< 240	U	2200	240	ug/Kg
1,2-Dichlorobenzene	< 220	U	2200	220	ug/Kg
1,3-Dichlorobenzene	< 260	U	2200	260	ug/Kg
1,4-Dichlorobenzene	< 220	U	2200	220	ug/Kg
Benzyl Alcohol	< 220	U	2200	220	ug/Kg
2-Methylphenol	< 220	U	2200	220	ug/Kg
2'-oxybis(1-chloropropane)	< 220	U	2200	220	ug/Kg
3+4-Methylphenols	< 390	U	2200	390	ug/Kg
N-Nitroso-di-n-propylamine	< 220	U	2200	220	ug/Kg
Hexachloroethane	< 240	U	2200	240	ug/Kg
Nitrobenzene	< 220	U	2200	220	ug/Kg
phorone	< 220	U	2200	220	ug/Kg
Nitrophenol	< 240	U	2200	240	ug/Kg
2,4-Dimethylphenol	< 500	U	2200	500	ug/Kg
(2-Chloroethoxy)methane	< 220	U	2200	220	ug/Kg
2,4-Dichlorophenol	< 280	U	2200	280	ug/Kg
1,2,4-Trichlorobenzene	< 260	U	2200	260	ug/Kg
phthalene	< 260	U	2200	260	ug/Kg
4-Chloroaniline	< 260	U	2200	260	ug/Kg
Hexachlorobutadiene	< 330	U	2200	330	ug/Kg
Chloro-3-methylphenol	< 240	U	2200	240	ug/Kg
Hexachlorocyclopentadiene	< 820	U	2200	820	ug/Kg
2,4,6-Trichlorophenol	< 220	U	2200	220	ug/Kg
2,4,5-Trichlorophenol	< 220	U	5500	220	ug/Kg
2-Chloronaphthalene	< 260	U	2200	260	ug/Kg
methylphthalate	< 220	U	2200	220	ug/Kg
naphthylene	< 260	U	2200	260	ug/Kg
2,6-Dinitrotoluene	< 220	U	2200	220	ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID:	P3702-06DL	Client ID:	TP-4DL
Date Collected:	8/9/02	Date Received:	8/9/02
Date Analyzed:	8/22/02	Matrix:	SOIL
Date Extracted:	8/14/02	File ID:	BD001896.D
Dilution:	5	Instrument ID:	5971D
Analytical Method:	8270	Analytical Run ID:	1
Sample Wt/Wol:	30.0	Extract Vol:	1000
Injection Vol:	2	% Moisture:	24
Associated Blank:	PB081402-08B		

Parameter	Concentration	C	RDL	MDL	Units
SURROGATES					
2-Fluorophenol	25.15	42 %	25 - 121		SPK: 300
Phenol-d5	34.39	57 %	24 - 113		SPK: 300
Nitrobenzene-d5	25.83	65 %	23 - 120		SPK: 200
2-Fluorobiphenyl	23.83	60 %	30 - 115		SPK: 200
2,4,6-Tribromophenol	38.89	65 %	19 - 122		SPK: 300
Terphenyl-d14	57.21	143 %	18 - 137		SPK: 200
INTERNAL STANDARDS					
1,4-Dichlorobenzene-d4	42373	5.54			
Naphthalene-d8	130181	7.97			
Acenaphthene-d10	89954	11.68			
Phenanthrene-d10	120971	14.83			
Chrysene-d12	36376	20.64			
Perylene-d12	10965	23.61			

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-07

Client ID: TP-4D

Date Collected: 8/9/02
Date Analyzed: 8/20/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8270
Sample Wt/Wol: 30.6
Injection Vol: 2
Associated Blank: PB081402-08B

Date Received: 8/9/02
Matrix: SOIL
File ID: BD001857.D
Instrument ID: 5971D
Analytical Run ID: 1
Extract Vol: 1000
% Moisture: 20

rameter	Concentration	C	RDL	MDL	Units
TARGETS					
Nitrosodimethylamine	< 40	U	400	40	ug/Kg
enol	< 40	U	400	40	ug/Kg
bis(2-Chloroethyl)ether	< 49	U	400	49	ug/Kg
Chlorophenol	< 44	U	400	44	ug/Kg
,2-Dichlorobenzene	< 40	U	400	40	ug/Kg
1,3-Dichlorobenzene	< 49	U	400	49	ug/Kg
-Dichlorobenzene	< 40	U	400	40	ug/Kg
Benzyl Alcohol	< 40	U	400	40	ug/Kg
2-Methylphenol	< 40	U	400	40	ug/Kg
'-oxybis(1-chloropropane)	< 40	U	400	40	ug/Kg
3+4-Methylphenols	< 73	U	400	73	ug/Kg
N-Nitroso-di-n-propylamine	< 40	U	400	40	ug/Kg
xachloroethane	< 44	U	400	44	ug/Kg
Nitrobenzene	< 40	U	400	40	ug/Kg
phorone	< 40	U	400	40	ug/Kg
Nitrophenol	< 44	U	400	44	ug/Kg
2,4-Dimethylphenol	< 93	U	400	93	ug/Kg
(2-Chloroethoxy)methane	< 40	U	400	40	ug/Kg
-Dichlorophenol	< 53	U	400	53	ug/Kg
1,2,4-Trichlorobenzene	< 49	U	400	49	ug/Kg
phthalene	< 49	U	400	49	ug/Kg
-Chloroaniline	< 49	U	400	49	ug/Kg
Hexachlorobutadiene	< 61	U	400	61	ug/Kg
Chloro-3-methylphenol	< 44	U	400	44	ug/Kg
Hexachlorocyclopentadiene	< 150	U	400	150	ug/Kg
4,6-Trichlorophenol	< 40	U	400	40	ug/Kg
,5-Trichlorophenol	< 40	U	1000	40	ug/Kg
-Chloronaphthalene	< 49	U	400	49	ug/Kg
-methylphthalate	< 40	U	400	40	ug/Kg
enaphthylene	< 49	U	400	49	ug/Kg
,6-Dinitrotoluene	< 40	U	400	40	ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID:	P3702-07	Client ID:	TP-4D
Date Collected:	8/9/02	Date Received:	8/9/02
Date Analyzed:	8/20/02	Matrix:	SOIL
Date Extracted:	8/14/02	File ID:	BD001857.D
Dilution:	1	Instrument ID:	5971D
Analytical Method:	8270	Analytical Run ID:	1
Sample Wt/Wol:	30.6	Extract Vol:	1000
Injection Vol:	2	% Moisture:	20
Associated Blank:	PB081402-08B		

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
Acenaphthene	< 49	U	400	49	ug/Kg
2,4-Dinitrophenol	< 81	U	1000	81	ug/Kg
4-Nitrophenol	< 44	U	1000	44	ug/Kg
2,4-Dinitrotoluene	< 44	U	400	44	ug/Kg
Diethylphthalate	< 40	U	400	40	ug/Kg
4-Chlorophenyl-phenylether	< 49	U	400	49	ug/Kg
Fluorene	< 44	U	400	44	ug/Kg
4,6-Dinitro-2-methylphenol	< 49	U	1000	49	ug/Kg
N-Nitrosodiphenylamine	< 81	U	400	81	ug/Kg
Azobenzene	< 44	U	400	44	ug/Kg
4-Bromophenyl-phenylether	< 53	U	400	53	ug/Kg
Hexachlorobenzene	< 44	U	400	44	ug/Kg
Pentachlorophenol	< 77	U	1000	77	ug/Kg
Phenanthrene	< 40	U	400	40	ug/Kg
Anthracene	< 53	U	400	53	ug/Kg
Di-n-butylphthalate	< 49	U	400	49	ug/Kg
Fluoranthene	< 40	U	400	40	ug/Kg
Benzidine	< 44	U	400	44	ug/Kg
Pyrene	< 40	U	400	40	ug/Kg
Butylbenzylphthalate	< 40	U	400	40	ug/Kg
3,3'-Dichlorobenzidine	< 40	U	400	40	ug/Kg
Benzo(a)anthracene	< 40	U	400	40	ug/Kg
Chrysene	< 65	U	400	65	ug/Kg
Bis(2-Ethylhexyl)phthalate	< 40	U	400	40	ug/Kg
Di-n-octyl phthalate	< 61	U	400	61	ug/Kg
Benzo(b)fluoranthene	< 40	U	400	40	ug/Kg
Benzo(k)fluoranthene	< 110	U	400	110	ug/Kg
Benzo(a)pyrene	< 61	U	400	61	ug/Kg
Indeno(1,2,3-cd)pyrene	< 65	U	400	65	ug/Kg
Dibenz(a,h)anthracene	< 61	U	400	61	ug/Kg
Benzo(g,h,i)perylene	< 53	U	400	53	ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-07 **Client ID:** TP-4D

Date Collected: 8/9/02 **Date Received:** 8/9/02
Date Analyzed: 8/20/02 **Matrix:** SOIL
Date Extracted: 8/14/02 **File ID:** BD001857.D
Dilution: 1 **Instrument ID:** 5971D
Analytical Method: 8270 **Analytical Run ID:** 1
Sample Wt/Wol: 30.6 **Extract Vol:** 1000
Injection Vol: 2 **% Moisture:** 20
Associated Blank: PB081402-08B

rameter	Concentration	C	RDL	MDL	Units
SURROGATES					
Fluorophenol	259.23	86 %	25 - 121		SPK: 300
enol-d5	255.67	85 %	24 - 113		SPK: 300
Nitrobenzene-d5	178.15	89 %	23 - 120		SPK: 200
Fluorobiphenyl	188.75	94 %	30 - 115		SPK: 200
,4,6-Tribromophenol	339.97	113 %	19 - 122		SPK: 300
Terphenyl-d14	325.53	163 %	18 - 137		SPK: 200
TERNAL STANDARDS					
1,4-Dichlorobenzene-d4	37527	5.58			
phthalene-d8	107455	8.03			
enaphthene-d10	79049	11.72			
Phenanthrene-d10	117840	14.91			
rysene-d12	72105	20.71			
erylene-d12	54753	23.65			
NTITIVE IDENTIFIED COMPOUNDS					
P	8700	A	3.36		ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID:	P3702-08	Client ID:	TP-13
Date Collected:	8/9/02	Date Received:	8/9/02
Date Analyzed:	8/21/02	Matrix:	SOIL
Date Extracted:	8/14/02	File ID:	BD001864.D
Dilution:	1	Instrument ID:	5971D
Analytical Method:	8270	Analytical Run ID:	1
Sample Wt/Wol:	30.0	Extract Vol:	1000
Injection Vol:	2	% Moisture:	4
Associated Blank:	PB081402-08B		

rameter	Concentration	C	RDL	MDL	Units
TARGETS					
Nitrosodimethylamine	< 34	U	340	34	ug/Kg
enol	< 34	U	340	34	ug/Kg
bis(2-Chloroethyl)ether	< 41	U	340	41	ug/Kg
Chlorophenol	< 38	U	340	38	ug/Kg
,2-Dichlorobenzene	< 34	U	340	34	ug/Kg
3-Dichlorobenzene	< 41	U	340	41	ug/Kg
-Dichlorobenzene	< 34	U	340	34	ug/Kg
Benzyl Alcohol	< 34	U	340	34	ug/Kg
-Methylphenol	< 34	U	340	34	ug/Kg
'-oxybis(1-chloropropane)	< 34	U	340	34	ug/Kg
+4-Methylphenols	< 62	U	340	62	ug/Kg
Nitroso-di-n-propylamine	< 34	U	340	34	ug/Kg
xachloroethane	< 38	U	340	38	ug/Kg
Nitrobenzene	< 34	U	340	34	ug/Kg
phorone	< 34	U	340	34	ug/Kg
Nitrophenol	< 38	U	340	38	ug/Kg
,4-Dimethylphenol	< 79	U	340	79	ug/Kg
2-Chloroethoxy)methane	< 34	U	340	34	ug/Kg
-Dichlorophenol	< 45	U	340	45	ug/Kg
,2,4-Trichlorobenzene	< 41	U	340	41	ug/Kg
phthalene	< 41	U	340	41	ug/Kg
-Chloroaniline	< 41	U	340	41	ug/Kg
Hexachlorobutadiene	< 52	U	340	52	ug/Kg
hloro-3-methylphenol	< 38	U	340	38	ug/Kg
Hexachlorocyclopentadiene	< 130	U	340	130	ug/Kg
,6-Trichlorophenol	< 34	U	340	34	ug/Kg
5-Trichlorophenol	< 34	U	860	34	ug/Kg
-Chloronaphthalene	< 41	U	340	41	ug/Kg
ethylphthalate	< 34	U	340	34	ug/Kg
naphthylene	< 41	U	340	41	ug/Kg
,6-Dinitrotoluene	< 34	U	340	34	ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-08

Client ID: TP-13

Date Collected: 8/9/02
Date Analyzed: 8/21/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8270
Sample Wt/Wol: 30.0
Injection Vol: 2
Associated Blank: PB081402-08B

Date Received: 8/9/02
Matrix: SOIL
File ID: BD001864.D
Instrument ID: 5971D
Analytical Run ID: 1
Extract Vol: 1000
% Moisture: 4

rameter	Concentration	C	RDL	MDL	Units
TARGETS					
enaphthene	< 41	U	340	41	ug/Kg
-Dinitrophenol	< 69	U	860	69	ug/Kg
4-Nitrophenol	< 38	U	860	38	ug/Kg
-Dinitrotoluene	< 38	U	340	38	ug/Kg
ethylphthalate	< 34	U	340	34	ug/Kg
4-Chlorophenyl-phenylether	< 41	U	340	41	ug/Kg
orene	< 38	U	340	38	ug/Kg
,6-Dinitro-2-methylphenol	< 41	U	860	41	ug/Kg
N-Nitrosodiphenylamine	< 69	U	340	69	ug/Kg
obenzene	< 38	U	340	38	ug/Kg
4-Bromophenyl-phenylether	< 45	U	340	45	ug/Kg
Hexachlorobenzene	< 38	U	340	38	ug/Kg
ntachlorophenol	< 65	U	860	65	ug/Kg
Phenanthrene	< 34	U	340	34	ug/Kg
thracene	< 45	U	340	45	ug/Kg
n-butylphthalate	< 41	U	340	41	ug/Kg
luoranthene	49	J	340	34	ug/Kg
zidine	< 38	U	340	38	ug/Kg
ene	80	J	340	34	ug/Kg
Butylbenzylphthalate	< 34	U	340	34	ug/Kg
-Dichlorobenzidine	< 34	U	340	34	ug/Kg
nzo(a)anthracene	< 34	U	340	34	ug/Kg
hrysene	< 55	U	340	55	ug/Kg
(2-Ethylhexyl)phthalate	68	JB	340	34	ug/Kg
i-n-octyl phthalate	< 52	U	340	52	ug/Kg
enzo(b)fluoranthene	< 34	U	340	34	ug/Kg
zo(k)fluoranthene	< 89	U	340	89	ug/Kg
enzo(a)pyrene	< 52	U	340	52	ug/Kg
eno(1,2,3-cd)pyrene	< 55	U	340	55	ug/Kg
enz(a,h)anthracene	< 52	U	340	52	ug/Kg
enzo(g,h,i)perylene	< 45	U	340	45	ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID:	P3702-08	Client ID:	TP-13
Date Collected:	8/9/02	Date Received:	8/9/02
Date Analyzed:	8/21/02	Matrix:	SOIL
Date Extracted:	8/14/02	File ID:	BD001864.D
Dilution:	1	Instrument ID:	5971D
Analytical Method:	8270	Analytical Run ID:	1
Sample Wt/Wol:	30.0	Extract Vol:	1000
Injection Vol:	2	% Moisture:	4
Associated Blank:	PB081402-08B		

rameter	Concentration	C	RDL	MDL	Units
SURROGATES					
Fluorophenol	253.82	85 %	25 - 121		SPK: 300
enol-d5	205.37	68 %	24 - 113		SPK: 300
Nitrobenzene-d5	128.26	64 %	23 - 120		SPK: 200
Fluorobiphenyl	151.46	76 %	30 - 115		SPK: 200
,6-Tribromophenol	259.18	86 %	19 - 122		SPK: 300
Terphenyl-d14	329.85	165 %	18 - 137		SPK: 200
TERNAL STANDARDS					
1,4-Dichlorobenzene-d4	38353	5.57			
phthalene-d8	113675	8.01			
enaphthene-d10	81617	11.71			
Phenanthrene-d10	117282	14.88			
rysene-d12	54744	20.69			
rylene-d12	21790	23.67			
ENTITIVE IDENTIFIED COMPOUNDS					
P	4900	A	3.33		ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-09

Client ID: TP-10

Date Collected: 8/9/02
Date Analyzed: 8/21/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8270
Sample Wt/Wol: 30.0
Injection Vol: 2
Associated Blank: PB081402-08B

Date Received: 8/9/02
Matrix: SOIL
File ID: BD001865.D
Instrument ID: 5971D
Analytical Run ID: 1
Extract Vol: 1000
% Moisture: 24

rameter	Concentration	C	RDL	MDL	Units
TARGETS					
Nitrosodimethylamine	< 43	U	430	43	ug/Kg
enol	< 43	U	430	43	ug/Kg
bis(2-Chloroethyl)ether	< 52	U	430	52	ug/Kg
Chlorophenol	< 48	U	430	48	ug/Kg
-Dichlorobenzene	< 43	U	430	43	ug/Kg
1,3-Dichlorobenzene	< 52	U	430	52	ug/Kg
-Dichlorobenzene	< 43	U	430	43	ug/Kg
enzyl Alcohol	< 43	U	430	43	ug/Kg
2-Methylphenol	< 43	U	430	43	ug/Kg
-oxybis(1-chloropropane)	< 43	U	430	43	ug/Kg
3+4-Methylphenols	< 78	U	430	78	ug/Kg
Nitroso-di-n-propylamine	< 43	U	430	43	ug/Kg
xachloroethane	< 48	U	430	48	ug/Kg
Nitrobenzene	< 43	U	430	43	ug/Kg
phorone	< 43	U	430	43	ug/Kg
Nitrophenol	< 48	U	430	48	ug/Kg
,4-Dimethylphenol	< 100	U	430	100	ug/Kg
(2-Chloroethoxy)methane	< 43	U	430	43	ug/Kg
-Dichlorophenol	< 56	U	430	56	ug/Kg
,2,4-Trichlorobenzene	< 52	U	430	52	ug/Kg
phthalene	67	J	430	52	ug/Kg
-Chloroaniline	< 52	U	430	52	ug/Kg
Hexachlorobutadiene	< 65	U	430	65	ug/Kg
hloro-3-methylphenol	< 48	U	430	48	ug/Kg
Hexachlorocyclopentadiene	< 160	U	430	160	ug/Kg
4,6-Trichlorophenol	< 43	U	430	43	ug/Kg
,5-Trichlorophenol	< 43	U	1100	43	ug/Kg
-Chloronaphthalene	< 52	U	430	52	ug/Kg
methylphthalate	< 43	U	430	43	ug/Kg
naphthylene	120	J	430	52	ug/Kg
,6-Dinitrotoluene	< 43	U	430	43	ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID:	P3702-09	Client ID:	TP-10
Date Collected:	8/9/02	Date Received:	8/9/02
Date Analyzed:	8/21/02	Matrix:	SOIL
Date Extracted:	8/14/02	File ID:	BD001865.D
Dilution:	1	Instrument ID:	5971D
Analytical Method:	8270	Analytical Run ID:	1
Sample Wt/Wol:	30.0	Extract Vol:	1000
Injection Vol:	2	% Moisture:	24
Associated Blank:	PB081402-08B		

rameter	Concentration	C	RDL	MDL	Units
TARGETS					
enaphthene	< 52	U	430	52	ug/Kg
-Dinitrophenol	< 87	U	1100	87	ug/Kg
4-Nitrophenol	< 48	U	1100	48	ug/Kg
-Dinitrotoluene	< 48	U	430	48	ug/Kg
ethylphthalate	< 43	U	430	43	ug/Kg
4-Chlorophenyl-phenylether	< 52	U	430	52	ug/Kg
orene	< 48	U	430	48	ug/Kg
,o-Dinitro-2-methylphenol	< 52	U	1100	52	ug/Kg
N-Nitrosodiphenylamine	< 87	U	430	87	ug/Kg
obenzene	< 47	U	430	47	ug/Kg
4-Bromophenyl-phenylether	< 56	U	430	56	ug/Kg
exachlorobenzene	< 48	U	430	48	ug/Kg
ntachlorophenol	< 82	U	1100	82	ug/Kg
henanthrene	340	J	430	43	ug/Kg
thracene	76	J	430	56	ug/Kg
n-butylphthalate	< 52	U	430	52	ug/Kg
luoranthene	900		430	43	ug/Kg
nzidine	< 47	U	430	47	ug/Kg
ene	1100		430	43	ug/Kg
utylbenzylphthalate	< 43	U	430	43	ug/Kg
-Dichlorobenzidine	< 43	U	430	43	ug/Kg
nzo(a)anthracene	410	J	430	43	ug/Kg
hrysene	580		430	69	ug/Kg
2-Ethylhexyl)phthalate	< 43	U	430	43	ug/Kg
n-n-octyl phthalate	< 65	U	430	65	ug/Kg
enzo(b)fluoranthene	460		430	43	ug/Kg
nzo(k)fluoranthene	660		430	110	ug/Kg
enzo(a)pyrene	530		430	65	ug/Kg
eno(1,2,3-cd)pyrene	74	J	430	69	ug/Kg
enz(a,h)anthracene	< 65	U	430	65	ug/Kg
enzo(g,h,i)perylene	150	J	430	56	ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID:	P3702-09	**Client ID:**	TP-10
Date Collected:	8/9/02	**Date Received:**	8/9/02
Date Analyzed:	8/21/02	**Matrix:**	SOIL
Date Extracted:	8/14/02	**File ID:**	BD001865.D
Dilution:	1	**Instrument ID:**	5971D
Analytical Method:	8270	**Analytical Run ID:**	1
Sample Wt/Wol:	30.0	**Extract Vol:**	1000
Injection Vol:	2	**% Moisture:**	24
Associated Blank:	PB081402-08B		

rameter	Concentration	C	RDL	MDL	Units
SURROGATES					
Fluorophenol	291.01	97 %	25 - 121		SPK: 300
enol-d5	238.56	80 %	24 - 113		SPK: 300
Nitrobenzene-d5	158.66	79 %	23 - 120		SPK: 200
Fluorobiphenyl	173.43	87 %	30 - 115		SPK: 200
2,4,6-Tribromophenol	314.67	105 %	19 - 122		SPK: 300
Terphenyl-d14	321.46	161 %	18 - 137		SPK: 200
TERNAL STANDARDS					
1,4-Dichlorobenzene-d4	41486	5.56			
phthalene-d8	121921	8.01			
enaphthene-d10	89418	11.71			
Phenanthrene-d10	129615	14.88			
rysene-d12	72086	20.70			
Perylene-d12	28074	23.67			
NTITIVE IDENTIFIED COMPOUNDS					
CP	8500	A	3.35		ug/Kg
Hexadecanoic acid	450	JB	16.42		ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-10 **Client ID:** TP-10D

Date Collected: 8/9/02 **Date Received:** 8/9/02
Date Analyzed: 8/20/02 **Matrix:** SOIL
Date Extracted: 8/14/02 **File ID:** BD001856.D
Dilution: 1 **Instrument ID:** 5971D
Analytical Method: 8270 **Analytical Run ID:** 1
Sample Wt/Wol: 30.4 **Extract Vol:** 1000
Injection Vol: 2 **% Moisture:** 21
Associated Blank: PB081402-08B

rameter	Concentration	C	RDL	MDL	Units
TARGETS					
Nitrosodimethylamine	< 41	U	410	41	ug/Kg
enol	< 41	U	410	41	ug/Kg
bis(2-Chloroethyl)ether	< 49	U	410	49	ug/Kg
Chlorophenol	< 45	U	410	45	ug/Kg
,2-Dichlorobenzene	< 41	U	410	41	ug/Kg
1,3-Dichlorobenzene	< 49	U	410	49	ug/Kg
4-Dichlorobenzene	< 41	U	410	41	ug/Kg
Benzyl Alcohol	< 41	U	410	41	ug/Kg
2-Methylphenol	< 41	U	410	41	ug/Kg
2'-oxybis(1-chloropropane)	< 41	U	410	41	ug/Kg
3+4-Methylphenols	< 74	U	410	74	ug/Kg
N-Nitroso-di-n-propylamine	< 41	U	410	41	ug/Kg
xachloroethane	< 45	U	410	45	ug/Kg
Nitrobenzene	< 41	U	410	41	ug/Kg
phorone	< 41	U	410	41	ug/Kg
Nitrophenol	< 45	U	410	45	ug/Kg
2,4-Dimethylphenol	< 95	U	410	95	ug/Kg
(2-Chloroethoxy)methane	< 41	U	410	41	ug/Kg
4-Dichlorophenol	< 54	U	410	54	ug/Kg
1,2,4-Trichlorobenzene	< 49	U	410	49	ug/Kg
phthalene	< 49	U	410	49	ug/Kg
-Chloroaniline	< 49	U	410	49	ug/Kg
Hexachlorobutadiene	< 62	U	410	62	ug/Kg
Chloro-3-methylphenol	< 45	U	410	45	ug/Kg
Hexachlorocyclopentadiene	< 160	U	410	160	ug/Kg
4,6-Trichlorophenol	< 41	U	410	41	ug/Kg
4,5-Trichlorophenol	< 41	U	1000	41	ug/Kg
-Chloronaphthalene	< 49	U	410	49	ug/Kg
methylphthalate	< 41	U	410	41	ug/Kg
enaphthylene	< 49	U	410	49	ug/Kg
,6-Dinitrotoluene	< 41	U	410	41	ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID:	P3702-10	**Client ID:**	TP-10D
Date Collected:	8/9/02	**Date Received:**	8/9/02
Date Analyzed:	8/20/02	**Matrix:**	SOIL
Date Extracted:	8/14/02	**File ID:**	BD001856.D
Dilution:	1	**Instrument ID:**	5971D
Analytical Method:	8270	**Analytical Run ID:**	1
Sample Wt/Wol:	30.4	**Extract Vol:**	1000
Injection Vol:	2	**% Moisture:**	21
Associated Blank:	PB081402-08B		

rameter	Concentration	C	RDL	MDL	Units
TARGETS					
enaphthene	< 49	U	410	49	ug/Kg
l-Dinitrophenol	< 82	U	1000	82	ug/Kg
4-Nitrophenol	< 45	U	1000	45	ug/Kg
l-Dinitrotoluene	< 45	U	410	45	ug/Kg
ethylphthalate	< 41	U	410	41	ug/Kg
4-Chlorophenyl-phenylether	< 49	U	410	49	ug/Kg
lorene	< 45	U	410	45	ug/Kg
,6-Dinitro-2-methylphenol	< 49	U	1000	49	ug/Kg
N-Nitrosodiphenylamine	< 82	U	410	82	ug/Kg
obenzene	< 45	U	410	45	ug/Kg
4-Bromophenyl-phenylether	< 54	U	410	54	ug/Kg
Hexachlorobenzene	< 45	U	410	45	ug/Kg
ntachlorophenol	< 78	U	1000	78	ug/Kg
Phenanthrene	< 41	U	410	41	ug/Kg
nthracene	< 54	U	410	54	ug/Kg
-n-butylphthalate	< 49	U	410	49	ug/Kg
luoranthene	< 41	U	410	41	ug/Kg
nzidine	< 45	U	410	45	ug/Kg
rene	< 41	U	410	41	ug/Kg
Butylbenzylphthalate	< 41	U	410	41	ug/Kg
'-Dichlorobenzidine	< 41	U	410	41	ug/Kg
nzo(a)anthracene	< 41	U	410	41	ug/Kg
Chrysene	< 66	U	410	66	ug/Kg
(2-Ethylhexyl)phthalate	88	JB	410	41	ug/Kg
-n-octyl phthalate	< 62	U	410	62	ug/Kg
Benzo(b)fluoranthene	< 41	U	410	41	ug/Kg
nzo(k)fluoranthene	< 110	U	410	110	ug/Kg
Benzo(a)pyrene	< 62	U	410	62	ug/Kg
ndeno(1,2,3-cd)pyrene	< 66	U	410	66	ug/Kg
benz(a,h)anthracene	< 62	U	410	62	ug/Kg
Benzo(g,h,i)perylene	< 54	U	410	54	ug/Kg

SVOC-PP BNA

SDG No.: P3702-01

Client: PMK Group

Sample ID:	P3702-10	**Client ID:**	TP-10D
Date Collected:	8/9/02	**Date Received:**	8/9/02
Date Analyzed:	8/20/02	**Matrix:**	SOIL
Date Extracted:	8/14/02	**File ID:**	BD001856.D
Dilution:	1	**Instrument ID:**	5971D
Analytical Method:	8270	**Analytical Run ID:**	1
Sample Wt/Wol:	30.4	**Extract Vol:**	1000
Injection Vol:	2	**% Moisture:**	21
Associated Blank:	PB081402-08B		

rameter	Concentration	C	RDL	MDL	Units
SURROGATES					
Fluorophenol	319.34	106 %	25 - 121		SPK: 300
enol-d5	258.63	86 %	24 - 113		SPK: 300
Nitrobenzene-d5	180.88	90 %	23 - 120		SPK: 200
Fluorobiphenyl	189.34	95 %	30 - 115		SPK: 200
,6-Tribromophenol	352.28	117 %	19 - 122		SPK: 300
Terphenyl-d14	324.3	162 %	18 - 137		SPK: 200
TERNAL STANDARDS					
1,4-Dichlorobenzene-d4	34882	5.58			
phthalene-d8	99589	8.03			
enaphthene-d10	73401	11.73			
Phenanthrene-d10	111098	14.91			
rysene-d12	72332	20.71			
rylene-d12	58194	23.66			
ENTITIVE IDENTIFIED COMPOUNDS					
CP	10000	A	3.37		ug/Kg

DRPSR SUMMARY DATA REVIEW CHECKLIST

Date QA Report Submitted 11-19-02 Case Name Veterans Mem

Document Reviewed S1 Case Number 01-08-07-1845-23

Non-aqueous analyses Pests, PCBs, PP Metals Lab Name Chemtech Consulting Group

Aqueous analyses — Reviewer L. Range

Date Reviewed 1-7-03

Samples Reviewed TP-31, TP 33, TP-34, TP-6, TP-6D, TP-4, TP-4D TP-13, TP-10, TP-10D

Once the QA review is complete, attach the analytical results summary sheets, the signed Laboratory Deliverables Checklist and Non-Conformance Summary, and a list of the field and/or laboratory sample identification numbers to the DRPSR Data Review Checklist Supplement Form and include these items on the releasable side of the case file. The QA data may then be discarded.

Note: Please be advised that the full QA/QC package has not been retained in the file. For copies, please contact the laboratory or the owner or operator referenced in the file. NJ certified laboratories are required to retain lab deliverables for a minimum of five years.

List RP submitting QA/QC data _____

I. SUMMARY DATA REVIEW REQUIREMENTS:

	Yes	No
1. Signed Laboratory Deliverables Checklist and Non-Conformance Summary submitted?	✓	—
2. Problems identified in the Laboratory Deliverables Checklist and Non-Conformance Summary?	—	✓
3. MDL's submitted?	✓	—
4. MDL's less than current cleanup criteria?	✓	—

Comments: _____

PMK Group
CONSULTING & ENVIRONMENTAL ENGINEERS

SITE INVESTIGATION REPORT/ INTERIM REMEDIAL ACTION WORKPLAN
VETERANS MEMORIAL PARK
BLOCK 260, LOT 15.02
SOUTH PLAINFIELD, NEW JERSEY
PMK GROUP NO. 0502014

VOLUME IV

LABORATORY ANALYTICAL DATA PACKAGE

P3702

PREPARED BY:

THE PMK GROUP
PO BOX 5000
65 JACKSON DRIVE
CRANFORD, NEW JERSEY 07016

PREPARED FOR:

BOROUGH OF SOUTH PLAINFIELD
2480 PLAINFIELD AVENUE
SOUTH PLAINFIELD, NEW JERSEY 07080

OCTOBER 18, 2002

Pesticide
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-01 Client ID: TP-31

Date Collected: 8/9/02
Date Analyzed: 8/19/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8081
% Moisture: 12.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 3PS6995.D
Instrument ID: ECD3
Analytical Run ID: 3PS0816
Associated Blank:

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
alpha-BHC	< 1.4	U	1.9	1.4	ug/Kg
beta-BHC	< 0.11	U	1.9	0.11	ug/Kg
delta-BHC	< 0.23	U	1.9	0.23	ug/Kg
gamma-BHC (Lindane)	< 0.11	U	1.9	0.11	ug/Kg
Heptachlor	< 1.1	U	1.9	1.1	ug/Kg
Aldrin	< 0.11	U	1.9	0.11	ug/Kg
Heptachlor epoxide	< 0.34	U	1.9	0.34	ug/Kg
Endosulfan I	< 0.56	U	1.9	0.56	ug/Kg
Dieldrin	< 0.11	U	1.9	0.11	ug/Kg
4,4'-DDE	< 0.23	U	1.9	0.23	ug/Kg
Endrin	< 0.90	U	1.9	0.90	ug/Kg
Endosulfan II	< 0.34	U	1.9	0.34	ug/Kg
4,4'-DDD	< 0.23	U	1.9	0.23	ug/Kg
Endosulfan sulfate	< 0.68	U	1.9	0.68	ug/Kg
4,4'-DDT	< 0.23	U	1.9	0.23	ug/Kg
Methoxychlor	< 0.11	U	1.9	0.11	ug/Kg
Endrin ketone	< 0.11	U	1.9	0.11	ug/Kg
Endrin aldehyde	< 0.90	U	1.9	0.90	ug/Kg
alpha-Chlordane	< 0.34	U	1.9	0.34	ug/Kg
gamma-Chlordane	< 0.34	U	1.9	0.34	ug/Kg
Toxaphene	< 3.6	U	19	3.6	ug/Kg
Chlordane	< 2.1	U	19	2.1	ug/Kg
SURROGATES					
Decachlorobiphenyl	8.6	43 %	30 - 150		SPK: 20
Tetrachloro-m-xylene	12	60 %	30 - 150		SPK: 20

Pesticide
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-02 **Client ID:** TP-33

Date Collected: 8/9/02
Date Analyzed: 8/19/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8081
% Moisture: 10.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 3PS6996.D
Instrument ID: ECD3
Analytical Run ID: 3PS0816
Associated Blank:

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
alpha-BHC	< 1.3	U	1.9	1.3	ug/Kg
beta-BHC	< 0.11	U	1.9	0.11	ug/Kg
delta-BHC	< 0.22	U	1.9	0.22	ug/Kg
gamma-BHC (Lindane)	< 0.11	U	1.9	0.11	ug/Kg
Heptachlor	< 1.1	U	1.9	1.1	ug/Kg
Aldrin	< 0.11	U	1.9	0.11	ug/Kg
Heptachlor epoxide	< 0.33	U	1.9	0.33	ug/Kg
Endosulfan I	< 0.55	U	1.9	0.55	ug/Kg
Dieldrin	< 0.11	U	1.9	0.11	ug/Kg
4,4'-DDE	< 0.22	U	1.9	0.22	ug/Kg
Endrin	< 0.88	U	1.9	0.88	ug/Kg
Endosulfan II	< 0.33	U	1.9	0.33	ug/Kg
4,4'-DDD	< 0.22	U	1.9	0.22	ug/Kg
Endosulfan sulfate	< 0.66	U	1.9	0.66	ug/Kg
4,4'-DDT	< 0.22	U	1.9	0.22	ug/Kg
Methoxychlor	< 0.11	U	1.9	0.11	ug/Kg
Endrin ketone	< 0.11	U	1.9	0.11	ug/Kg
Endrin aldehyde	< 0.88	U	1.9	0.88	ug/Kg
alpha-Chlordane	< 0.33	U	1.9	0.33	ug/Kg
gamma-Chlordane	< 0.33	U	1.9	0.33	ug/Kg
Toxaphene	< 3.5	U	19	3.5	ug/Kg
Chlordane	< 2.1	U	19	2.1	ug/Kg
SURROGATES					
Decachlorobiphenyl	8.95	45 %	30 - 150		SPK: 20
Tetrachloro-m-xylene	8.43	42 %	30 - 150		SPK: 20

Pesticide
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-03 **Client ID:** TP-34

Date Collected: 8/9/02
Date Analyzed: 8/19/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8081
% Moisture: 15.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 3PS6997.D
Instrument ID: ECD3
Analytical Run ID: 3PS0816
Associated Blank:

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
alpha-BHC	< 1.4	U	2.0	1.4	ug/Kg
beta-BHC	< 0.12	U	2.0	0.12	ug/Kg
delta-BHC	< 0.23	U	2.0	0.23	ug/Kg
gamma-BHC (Lindane)	< 0.12	U	2.0	0.12	ug/Kg
Heptachlor	< 1.2	U	2.0	1.2	ug/Kg
Aldrin	< 0.12	U	2.0	0.12	ug/Kg
Heptachlor epoxide	< 0.35	U	2.0	0.35	ug/Kg
Endosulfan I	< 0.59	U	2.0	0.59	ug/Kg
Dieldrin	< 0.12	U	2.0	0.12	ug/Kg
4,4'-DDE	< 0.23	U	2.0	0.23	ug/Kg
Endrin	< 0.94	U	2.0	0.94	ug/Kg
Endosulfan II	< 0.35	U	2.0	0.35	ug/Kg
4,4'-DDD	< 0.23	U	2.0	0.23	ug/Kg
Endosulfan sulfate	< 0.70	U	2.0	0.70	ug/Kg
4,4'-DDT	< 0.23	U	2.0	0.23	ug/Kg
Methoxychlor	< 0.12	U	2.0	0.12	ug/Kg
Endrin ketone	< 0.12	U	2.0	0.12	ug/Kg
Endrin aldehyde	< 0.94	U	2.0	0.94	ug/Kg
alpha-Chlordane	< 0.35	U	2.0	0.35	ug/Kg
gamma-Chlordane	< 0.35	U	2.0	0.35	ug/Kg
Toxaphene	< 3.8	U	20	3.8	ug/Kg
Chlordane	< 2.2	U	20	2.2	ug/Kg
SURROGATES					
Decachlorobiphenyl	11.11	56 %	30 - 150		SPK: 20
Tetrachloro-m-xylene	7.45	37 %	30 - 150		SPK: 20

Pesticide
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-04 **Client ID:** TP-6D

Date Collected: 8/9/02
Date Analyzed: 8/20/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8081
% Moisture: 26.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 3PS6998.D
Instrument ID: ECD3
Analytical Run ID: 3PS0816
Associated Blank:

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
alpha-BHC	< 1.6	U	2.3	1.6	ug/Kg
beta-BHC	< 0.13	U	2.3	0.13	ug/Kg
delta-BHC	< 0.27	U	2.3	0.27	ug/Kg
gamma-BHC (Lindane)	< 0.13	U	2.3	0.13	ug/Kg
Heptachlor	< 1.3	U	2.3	1.3	ug/Kg
Aldrin	< 0.13	U	2.3	0.13	ug/Kg
Heptachlor epoxide	< 0.40	U	2.3	0.40	ug/Kg
Endosulfan I	< 0.67	U	2.3	0.67	ug/Kg
Dieldrin	< 0.13	U	2.3	0.13	ug/Kg
4,4'-DDE	< 0.27	U	2.3	0.27	ug/Kg
Endrin	< 1.1	U	2.3	1.1	ug/Kg
Endosulfan II	< 0.40	U	2.3	0.40	ug/Kg
4,4'-DDD	< 0.27	U	2.3	0.27	ug/Kg
Endosulfan sulfate	< 0.81	U	2.3	0.81	ug/Kg
4,4'-DDT	< 0.27	U	2.3	0.27	ug/Kg
Methoxychlor	< 0.13	U	2.3	0.13	ug/Kg
Endrin ketone	< 0.13	U	2.3	0.13	ug/Kg
Endrin aldehyde	< 1.1	U	2.3	1.1	ug/Kg
alpha-Chlordane	< 0.40	U	2.3	0.40	ug/Kg
gamma-Chlordane	< 0.40	U	2.3	0.40	ug/Kg
Toxaphene	< 4.3	U	23	4.3	ug/Kg
Chlordane	< 2.6	U	23	2.6	ug/Kg
SURROGATES					
Decachlorobiphenyl	16.42	82 %	30 - 150		SPK: 20
Tetrachloro-m-xylene	12.88	64 %	30 - 150		SPK: 20

Pesticide
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-08 **Client ID:** TP-13

Date Collected: 8/9/02
Date Analyzed: 8/20/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8081
% Moisture: 4.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 3PS7002.D
Instrument ID: ECD3
Analytical Run ID: 3PS0816
Associated Blank:

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
alpha-BHC	< 1.2	U	1.7	1.2	ug/Kg
beta-BHC	< 0.10	U	1.7	0.10	ug/Kg
delta-BHC	< 0.21	U	1.7	0.21	ug/Kg
gamma-BHC (Lindane)	< 0.10	U	1.7	0.10	ug/Kg
Heptachlor	< 1.0	U	1.7	1.0	ug/Kg
Aldrin	< 0.10	U	1.7	0.10	ug/Kg
Heptachlor epoxide	< 0.31	U	1.7	0.31	ug/Kg
Endosulfan I	< 0.51	U	1.7	0.51	ug/Kg
Dieldrin	< 0.10	U	1.7	0.10	ug/Kg
4,4'-DDE	< 0.21	U	1.7	0.21	ug/Kg
Endrin	< 0.82	U	1.7	0.82	ug/Kg
Endosulfan II	< 0.31	U	1.7	0.31	ug/Kg
4,4'-DDD	< 0.21	U	1.7	0.21	ug/Kg
Endosulfan sulfate	< 0.62	U	1.7	0.62	ug/Kg
4,4'-DDT	< 0.21	U	1.7	0.21	ug/Kg
Methoxychlor	< 0.10	U	1.7	0.10	ug/Kg
Endrin ketone	< 0.10	U	1.7	0.10	ug/Kg
Endrin aldehyde	< 0.82	U	1.7	0.82	ug/Kg
alpha-Chlordane	< 0.31	U	1.7	0.31	ug/Kg
gamma-Chlordane	< 0.31	U	1.7	0.31	ug/Kg
Toxaphene	< 3.3	U	17	3.3	ug/Kg
Chlordane	< 2.0	U	17	2.0	ug/Kg
SURROGATES					
Decachlorobiphenyl	12.34	62 %	30 - 150		SPK: 20
Tetrachloro-m-xylene	12.07	60 %	30 - 150		SPK: 20

Pesticide
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-09 **Client ID:** TP-10

Date Collected: 8/9/02
Date Analyzed: 8/20/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8081
% Moisture: 24.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 3PS7003.D
Instrument ID: ECD3
Analytical Run ID: 3PS0816
Associated Blank:

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
alpha-BHC	< 1.6	U	2.2	1.6	ug/Kg
beta-BHC	< 0.13	U	2.2	0.13	ug/Kg
delta-BHC	< 0.26	U	2.2	0.26	ug/Kg
gamma-BHC (Lindane)	< 0.13	U	2.2	0.13	ug/Kg
Heptachlor	< 1.3	U	2.2	1.3	ug/Kg
Aldrin	< 0.13	U	2.2	0.13	ug/Kg
Heptachlor epoxide	< 0.39	U	2.2	0.39	ug/Kg
Endosulfan I	< 0.65	U	2.2	0.65	ug/Kg
Dieldrin	< 0.13	U	2.2	0.13	ug/Kg
4,4'-DDE	< 0.26	U	2.2	0.26	ug/Kg
Endrin	< 1.0	U	2.2	1.0	ug/Kg
Endosulfan II	< 0.39	U	2.2	0.39	ug/Kg
4,4'-DDD	< 0.26	U	2.2	0.26	ug/Kg
Endosulfan sulfate	< 0.78	U	2.2	0.78	ug/Kg
4,4'-DDT	< 0.26	U	2.2	0.26	ug/Kg
Methoxychlor	< 0.13	U	2.2	0.13	ug/Kg
Endrin ketone	< 0.13	U	2.2	0.13	ug/Kg
Endrin aldehyde	< 1.0	U	2.2	1.0	ug/Kg
alpha-Chlordane	< 0.39	U	2.2	0.39	ug/Kg
gamma-Chlordane	< 0.39	U	2.2	0.39	ug/Kg
Toxaphene	< 4.2	U	22	4.2	ug/Kg
Chlordane	< 2.5	U	22	2.5	ug/Kg
SURROGATES					
Decachlorobiphenyl	8.4	42 %	30 - 150		SPK: 20
Tetrachloro-m-xylene	7.55	38 %	30 - 150		SPK: 20

Pesticide
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-10 Client ID: TP-10D

Date Collected: 8/9/02
Date Analyzed: 8/20/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8081
% Moisture: 21.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 3PS7004.D
Instrument ID: ECD3
Analytical Run ID: 3PS0816
Associated Blank:

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
alpha-BHC	< 1.5	U	2.1	1.5	ug/Kg
beta-BHC	< 0.13	U	2.1	0.13	ug/Kg
delta-BHC	< 0.25	U	2.1	0.25	ug/Kg
gamma-BHC (Lindane)	< 0.13	U	2.1	0.13	ug/Kg
Heptachlor	< 1.3	U	2.1	1.3	ug/Kg
Aldrin	< 0.13	U	2.1	0.13	ug/Kg
Heptachlor epoxide	< 0.38	U	2.1	0.38	ug/Kg
Endosulfan I	< 0.63	U	2.1	0.63	ug/Kg
Dieldrin	< 0.13	U	2.1	0.13	ug/Kg
4,4'-DDE	< 0.25	U	2.1	0.25	ug/Kg
Endrin	< 1.0	U	2.1	1.0	ug/Kg
Endosulfan II	< 0.38	U	2.1	0.38	ug/Kg
4,4'-DDD	< 0.25	U	2.1	0.25	ug/Kg
Endosulfan sulfate	< 0.76	U	2.1	0.76	ug/Kg
4,4'-DDT	< 0.25	U	2.1	0.25	ug/Kg
Methoxychlor	< 0.13	U	2.1	0.13	ug/Kg
Endrin ketone	< 0.13	U	2.1	0.13	ug/Kg
Endrin aldehyde	< 1.0	U	2.1	1.0	ug/Kg
alpha-Chlordane	< 0.38	U	2.1	0.38	ug/Kg
gamma-Chlordane	< 0.38	U	2.1	0.38	ug/Kg
Toxaphene	< 4.0	U	21	4.0	ug/Kg
Chlordane	< 2.4	U	21	2.4	ug/Kg
SURROGATES					
Decachlorobiphenyl	8.53	43 %	30 - 150		SPK: 20
Tetrachloro-m-xylene	8.67	43 %	30 - 150		SPK: 20

PCB
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-01 **Client ID:** TP-31

Date Collected: 8/9/02
Date Analyzed: 8/19/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8082
% Moisture: 12.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 4PC8397.D
Instrument ID: ECD4
Analytical Run ID: 4PC0805
Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
AROCLOR 1016	< 5.9	U	19	5.9	ug/Kg
AROCLOR 1221	< 1.5	U	19	1.5	ug/Kg
AROCLOR 1232	< 9.0	U	19	9.0	ug/Kg
AROCLOR 1242	< 2.5	U	19	2.5	ug/Kg
AROCLOR 1248	< 6.2	U	19	6.2	ug/Kg
AROCLOR 1254	< 12	U	19	12	ug/Kg
AROCLOR 1260	< 2.3	U	19	2.3	ug/Kg
SURROGATES					
Tetrachloro-m-xylene	17.02	85 %	24 - 151		SPK: 20
Decachlorobiphenyl	15.55	78 %	24 - 151		SPK: 20

PCB
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-02 **Client ID:** TP-33

Date Collected: 8/9/02
Date Analyzed: 8/19/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8082
% Moisture: 10.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 4PC8398.D
Instrument ID: ECD4
Analytical Run ID: 4PC0805
Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
AROCLOR 1016	< 5.7	U	19	5.7	ug/Kg
AROCLOR 1221	< 1.4	U	19	1.4	ug/Kg
AROCLOR 1232	< 8.8	U	19	8.8	ug/Kg
AROCLOR 1242	< 2.4	U	19	2.4	ug/Kg
AROCLOR 1248	< 6.1	U	19	6.1	ug/Kg
AROCLOR 1254	< 12	U	19	12	ug/Kg
AROCLOR 1260	< 2.2	U	19	2.2	ug/Kg
SURROGATES					
Tetrachloro-m-xylene	17.74	89 %	24 - 151		SPK: 20
Decachlorobiphenyl	15.63	78 %	24 - 151		SPK: 20

PCB
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-03 **Client ID:** TP-34

Date Collected: 8/9/02
Date Analyzed: 8/19/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8082
% Moisture: 15.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 4PC8399.D
Instrument ID: ECD4
Analytical Run ID: 4PC0805
Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
AROCLOR 1016	< 6.1	U	20	6.1	ug/Kg
AROCLOR 1221	< 1.5	U	20	1.5	ug/Kg
AROCLOR 1232	< 9.4	U	20	9.4	ug/Kg
AROCLOR 1242	< 2.6	U	20	2.6	ug/Kg
AROCLOR 1248	< 6.4	U	20	6.4	ug/Kg
AROCLOR 1254	110		20	12	ug/Kg
AROCLOR 1260	< 2.3	U	20	2.3	ug/Kg
SURROGATES					
Tetrachloro-m-xylene	16.78	84 %	24 - 151		SPK: 20
Decachlorobiphenyl	23.48	117 %	24 - 151		SPK: 20

PCB
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-04 Client ID: TP-6D

Date Collected: 8/9/02
Date Analyzed: 8/19/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8082
% Moisture: 26.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 4PC8400.D
Instrument ID: ECD4
Analytical Run ID: 4PC0805
Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
AROCLOR 1016	< 7.0	U	23	7.0	ug/Kg
AROCLOR 1221	< 1.8	U	23	1.8	ug/Kg
AROCLOR 1232	< 11	U	23	11	ug/Kg
AROCLOR 1242	< 3.0	U	23	3.0	ug/Kg
AROCLOR 1248	< 7.4	U	23	7.4	ug/Kg
AROCLOR 1254	430		23	14	ug/Kg
AROCLOR 1260	< 2.7	U	23	2.7	ug/Kg
SURROGATES					
Tetrachloro-m-xylene	17.84	89 %	24 - 151		SPK: 20
Decachlorobiphenyl	15.07	75 %	24 - 151		SPK: 20

PCB
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-05 **Client ID:** TP-6

Date Collected:	8/9/02	Date Received:	8/9/02
Date Analyzed:	8/19/02	Matrix:	SOIL
Date Extracted:	8/14/02	File ID:	4PC8401.D
Dilution:	1	Instrument ID:	ECD4
Analytical Method:	8082	Analytical Run ID:	4PC0805
% Moisture:	18.0	Associated Blank:	PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
AROCLOR 1016	< 6.3	U	21	6.3	ug/Kg
AROCLOR 1221	< 1.6	U	21	1.6	ug/Kg
AROCLOR 1232	< 9.7	U	21	9.7	ug/Kg
AROCLOR 1242	< 2.7	U	21	2.7	ug/Kg
AROCLOR 1248	< 6.7	U	21	6.7	ug/Kg
AROCLOR 1254	2400	E	21	13	ug/Kg
AROCLOR 1260	< 2.4	U	21	2.4	ug/Kg
SURROGATES					
Tetrachloro-m-xylene	15.44	77 %	24 - 151		SPK: 20
Decachlorobiphenyl	18.13	91 %	24 - 151		SPK: 20

PCB
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-05 **Client ID:** TP-6DL

Date Collected: 8/9/02
Date Analyzed: 8/20/02
Date Extracted: 8/14/02
Dilution: 10
Analytical Method: 8082
% Moisture: 18.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 4PC8430.D
Instrument ID: ECD4
Analytical Run ID: 4PC0805
Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
AROCLOR 1016	< 63	U	210	63	ug/Kg
AROCLOR 1221	< 16	U	210	16	ug/Kg
AROCLOR 1232	< 97	U	210	97	ug/Kg
AROCLOR 1242	< 27	U	210	27	ug/Kg
AROCLOR 1248	< 67	U	210	67	ug/Kg
AROCLOR 1254	2600		210	130	ug/Kg
AROCLOR 1260	< 24	U	210	24	ug/Kg
SURROGATES					
Tetrachloro-m-xylene	19.4	97 %	24 - 151		SPK: 20
Decachlorobiphenyl	16.8	84 %	24 - 151		SPK: 20

PCB
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-06 **Client ID:** TP-4

Date Collected: 8/9/02
Date Analyzed: 8/19/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8082
% Moisture: 24.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 4PC8402.D
Instrument ID: ECD4
Analytical Run ID: 4PC0805
Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
ARGETS					
AROCLOR 1016	< 6.8	U	22	6.8	ug/Kg
AROCLOR 1221	< 1.7	U	22	1.7	ug/Kg
AROCLOR 1232	< 11	U	22	11	ug/Kg
AROCLOR 1242	< 2.9	U	22	2.9	ug/Kg
ROCLOR 1248	< 7.2	U	22	7.2	ug/Kg
ROCLOR 1254	2600	E	22	14	ug/Kg
AROCLOR 1260	< 2.6	U	22	2.6	ug/Kg
URROGATES					
etrachloro-m-xylene	13.91	70 %	24 - 151		SPK: 20
Decachlorobiphenyl	19.08	95 %	24 - 151		SPK: 20

PCB
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-06 **Client ID:** TP-4DL

Date Collected: 8/9/02
Date Analyzed: 8/20/02
Date Extracted: 8/14/02
Dilution: 10
Analytical Method: 8082
% Moisture: 24.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 4PC8431.D
Instrument ID: ECD4
Analytical Run ID: 4PC0805
Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
AROCLOR 1016	< 68	U	220	68	ug/Kg
AROCLOR 1221	< 17	U	220	17	ug/Kg
AROCLOR 1232	< 110	U	220	110	ug/Kg
AROCLOR 1242	< 29	U	220	29	ug/Kg
AROCLOR 1248	< 72	U	220	72	ug/Kg
AROCLOR 1254	2800		220	140	ug/Kg
AROCLOR 1260	< 26	U	220	26	ug/Kg
SURROGATES					
Tetrachloro-m-xylene	20.5	103 %	24 - 151		SPK: 20
Decachlorobiphenyl	18.9	95 %	24 - 151		SPK: 20

PCB
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-07 **Client ID:** TP-4D

Date Collected: 8/9/02
Date Analyzed: 8/19/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8082
% Moisture: 20.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 4PC8403.D
Instrument ID: ECD4
Analytical Run ID: 4PC0805
Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
AROCLOR 1016	< 6.4	U	21	6.4	ug/Kg
AROCLOR 1221	< 1.6	U	21	1.6	ug/Kg
AROCLOR 1232	< 9.9	U	21	9.9	ug/Kg
AROCLOR 1242	< 2.7	U	21	2.7	ug/Kg
AROCLOR 1248	< 6.8	U	21	6.8	ug/Kg
AROCLOR 1254	< 13	U	21	13	ug/Kg
AROCLOR 1260	< 2.5	U	21	2.5	ug/Kg
SURROGATES					
Tetrachloro-m-xylene	17.11	86 %	24 - 151		SPK: 20
Decachlorobiphenyl	18.58	93 %	24 - 151		SPK: 20

PCB
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-08 **Client ID:** TP-13

Date Collected: 8/9/02
Date Analyzed: 8/19/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8082
% Moisture: 4.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 4PC8404.D
Instrument ID: ECD4
Analytical Run ID: 4PC0805
Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
ARGETS					
AROCLOR 1016	< 5.3	U	17	5.3	ug/Kg
AROCLOR 1221	< 1.3	U	17	1.3	ug/Kg
AROCLOR 1232	< 8.2	U	17	8.2	ug/Kg
AROCLOR 1242	< 2.3	U	17	2.3	ug/Kg
AROCLOR 1248	< 5.7	U	17	5.7	ug/Kg
AROCLOR 1254	43		17	11	ug/Kg
AROCLOR 1260	< 2.1	U	17	2.1	ug/Kg
URROGATES					
etrachloro-m-xylene	15.37	77 %	24 - 151		SPK: 20
Decachlorobiphenyl	13.81	69 %	24 - 151		SPK: 20

PCB
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-09 **Client ID:** TP-10

Date Collected:	8/9/02	**Date Received:**	8/9/02
Date Analyzed:	8/19/02	**Matrix:**	SOIL
Date Extracted:	8/14/02	**File ID:**	4PC8405.D
Dilution:	1	**Instrument ID:**	ECD4
Analytical Method:	8082	**Analytical Run ID:**	4PC0805
% Moisture:	24.0	**Associated Blank:**	PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
ARGETS					
AROCLOR 1016	< 6.8	U	22	6.8	ug/Kg
AROCLOR 1221	< 1.7	U	22	1.7	ug/Kg
AROCLOR 1232	< 10	U	22	10	ug/Kg
AROCLOR 1242	< 2.9	U	22	2.9	ug/Kg
AROCLOR 1248	< 7.2	U	22	7.2	ug/Kg
AROCLOR 1254	560	E	22	14	ug/Kg
AROCLOR 1260	< 2.6	U	22	2.6	ug/Kg
URROGATES					
etrachloro-m-xylene	13.63	68 %	24 - 151		SPK: 20
Decachlorobiphenyl	14.81	74 %	24 - 151		SPK: 20

PCB
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-09 **Client ID:** TP-10DL

Date Collected: 8/9/02
Date Analyzed: 8/20/02
Date Extracted: 8/14/02
Dilution: 10
Analytical Method: 8082
% Moisture: 24.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 4PC8432.D
Instrument ID: ECD4
Analytical Run ID: 4PC0805
Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
AROCLOR 1016	< 68	U	220	68	ug/Kg
AROCLOR 1221	< 17	U	220	17	ug/Kg
AROCLOR 1232	< 100	U	220	100	ug/Kg
AROCLOR 1242	< 29	U	220	29	ug/Kg
AROCLOR 1248	< 72	U	220	72	ug/Kg
AROCLOR 1254	650		220	140	ug/Kg
AROCLOR 1260	< 26	U	220	26	ug/Kg
SURROGATES					
Tetrachloro-m-xylene	20.7	104 %	24 - 151		SPK: 20
Decachlorobiphenyl	13.5	68 %	24 - 151		SPK: 20

PCB
SW-846

SDG No.: P3702-01

Client: PMK Group

Sample ID: P3702-10 **Client ID:** TP-10D

Date Collected: 8/9/02
Date Analyzed: 8/19/02
Date Extracted: 8/14/02
Dilution: 1
Analytical Method: 8082
% Moisture: 21.0

Date Received: 8/9/02
Matrix: SOIL
File ID: 4PC8406.D
Instrument ID: ECD4
Analytical Run ID: 4PC0805
Associated Blank: PB081402-06 B

Parameter	Concentration	C	RDL	MDL	Units
TARGETS					
AROCLOR 1016	< 6.6	U	21	6.6	ug/Kg
AROCLOR 1221	< 1.6	U	21	1.6	ug/Kg
AROCLOR 1232	< 10	U	21	10	ug/Kg
AROCLOR 1242	< 2.8	U	21	2.8	ug/Kg
AROCLOR 1248	< 6.9	U	21	6.9	ug/Kg
AROCLOR 1254	< 13	U	21	13	ug/Kg
AROCLOR 1260	< 2.5	U	21	2.5	ug/Kg
SURROGATES					
Tetrachloro-m-xylene	17.72	89 %	24 - 151		SPK: 20
Decachlorobiphenyl	15.9	79 %	24 - 151		SPK: 20

METALS

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: PMK Group SDG No.: P3702 Method Type: SW846

Sample ID: P3702-01 Client ID: TP-31

Contract: PMK Group Lab Code: CHEMED Case No.: SAS No.: P3702

Matrix: SOIL Date Received: 8/9/02 Level: LOW

% Solids: 88

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7440-36-0	Antimony	7.2	mg/Kg			P	0.26	P1	P182602
7440-38-2	Arsenic	37.9	mg/Kg			P	0.30	P1	P182602
7440-41-7	Beryllium	0.57	mg/Kg	B	E	P	0.01	P1	P182602
7440-43-9	Cadmium	0.74	mg/Kg			P	0.06	P1	P182602
7440-47-3	Chromium	11.8	mg/Kg			P	0.08	P1	P182602
7440-50-8	Copper	74.1	mg/Kg			P	0.17	P1	P182602
7439-92-1	Lead	197	mg/Kg			P	0.20	P1	P182602
7439-97-6	Mercury	0.10	mg/Kg			CV	0.01	CV1	081602C
7440-02-0	Nickel	10.0	mg/Kg			P	0.25	P1	P182602
7782-49-2	Selenium	2.6	mg/Kg			P	0.38	P1	P182602
7440-22-4	Silver	1.5	mg/Kg			P	0.42	P1	P182602
7440-28-0	Thallium	0.66	mg/Kg	U		P	0.66	P1	P182602
7440-66-6	Zinc	52.5	mg/Kg			P	0.07	P1	P182602

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

METALS

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: PMK Group **SDG No.:** P3702 **Method Type:** SW846

Sample ID: P3702-02 **Client ID:** TP-33

Contract: PMK Group **Lab Code:** CHEMED **Case No.:** **SAS No.:** P3702

Matrix: SOIL **Date Received:** 8/9/02 **Level:** LOW

% Solids: 90

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7440-36-0	Antimony	0.26	mg/Kg	U		P	0.26	P1	P182602
40-38-2	Arsenic	7.9	mg/Kg			P	0.29	P1	P182602
7440-41-7	Beryllium	0.58	mg/Kg		E	P	0.01	P1	P182602
40-43-9	Cadmium	0.54	mg/Kg	B		P	0.06	P1	P182602
40-47-3	Chromium	10.7	mg/Kg			P	0.08	P1	P182602
7440-50-8	Copper	47.6	mg/Kg			P	0.17	P1	P182602
39-92-1	Lead	75.5	mg/Kg			P	0.20	P1	P182602
7439-97-6	Mercury	0.05	mg/Kg			CV	0.01	CV1	081602C
40-02-0	Nickel	7.3	mg/Kg			P	0.24	P1	P182602
82-49-2	Selenium	0.85	mg/Kg			P	0.37	P1	P182602
7440-22-4	Silver	1.0	mg/Kg	B		P	0.41	P1	P182602
40-28-0	Thallium	0.64	mg/Kg	U		P	0.64	P1	P182602
7440-66-6	Zinc	100	mg/Kg			P	0.07	P1	P182602

Color Before: BROWN **Clarity Before:** **Texture:** MEDIUM

Color After: YELLOW **Clarity After:** **Artifacts:**

Comments:

METALS

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: PMK Group **SDG No.:** P3702 **Method Type:** SW846

Sample ID: P3702-03 **Client ID:** TP-34

Contract: PMK Group **Lab Code:** CHEMED **Case No.:** **SAS No.:** P3702

Matrix: SOIL **Date Received:** 8/9/02 **Level:** LOW

% Solids: 85

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
40-36-0	Antimony	0.27	mg/Kg	U		P	0.27	P1	P182602
440-38-2	Arsenic	7.0	mg/Kg			P	0.30	P1	P182602
7440-41-7	Beryllium	0.58	mg/Kg		E	P	0.01	P1	P182602
40-43-9	Cadmium	0.50	mg/Kg	B		P	0.06	P1	P182602
7440-47-3	Chromium	11.4	mg/Kg			P	0.08	P1	P182602
40-50-8	Copper	47.5	mg/Kg			P	0.17	P1	P182602
39-92-1	Lead	67.5	mg/Kg			P	0.21	P1	P182602
7439-97-6	Mercury	0.12	mg/Kg			CV	0.01	CV1	081602C
40-02-0	Nickel	6.6	mg/Kg			P	0.26	P1	P182602
782-49-2	Selenium	1.0	mg/Kg			P	0.38	P1	P182602
7440-22-4	Silver	0.88	mg/Kg	B		P	0.43	P1	P182602
40-28-0	Thallium	0.68	mg/Kg	U		P	0.68	P1	P182602
7440-66-6	Zinc	97.7	mg/Kg			P	0.07	P1	P182602

Color Before: BROWN **Clarity Before:** **Texture:** MEDIUM

Color After: YELLOW **Clarity After:** **Artifacts:**

Comments:

METALS

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: PMK Group SDG No.: P3702 Method Type: SW846

Sample ID: P3702-04 Client ID: TP-6D

Contract: PMK Group Lab Code: CHEMED Case No.: SAS No.: P3702

Matrix: SOIL Date Received: 8/9/02 Level: LOW

% Solids: 74

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7440-36-0	Antimony	5.6	mg/Kg	B		P	0.31	P1	P182602
40-38-2	Arsenic	46.7	mg/Kg			P	0.35	P1	P182602
7440-41-7	Beryllium	2.4	mg/Kg		E	P	0.01	P1	P182602
40-43-9	Cadmium	0.48	mg/Kg	B		P	0.07	P1	P182602
7440-47-3	Chromium	17.8	mg/Kg			P	0.09	P1	P182602
7440-50-8	Copper	64.9	mg/Kg			P	0.20	P1	P182602
39-92-1	Lead	556	mg/Kg			P	0.24	P1	P182602
7439-97-6	Mercury	0.14	mg/Kg			CV	0.01	CV1	081602C
40-02-0	Nickel	10.3	mg/Kg			P	0.29	P1	P182602
82-49-2	Selenium	1.6	mg/Kg			P	0.44	P1	P182602
7440-22-4	Silver	0.79	mg/Kg	B		P	0.50	P1	P182602
40-28-0	Thallium	0.78	mg/Kg	U		P	0.78	P1	P182602
7440-66-6	Zinc	90.6	mg/Kg			P	0.08	P1	P182602

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

METALS

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: PMK Group SDG No.: P3702 Method Type: SW846

Sample ID: P3702-05 Client ID: TP-6

Contract: PMK Group Lab Code: CHEMED Case No.: SAS No.: P3702

Matrix: SOIL Date Received: 8/9/02 Level: LOW

% Solids: 82

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7440-36-0	Antimony	2.0	mg/Kg	B		P	0.28	P1	P182602
7440-38-2	Arsenic	41.4	mg/Kg			P	0.32	P1	P182602
7440-41-7	Beryllium	0.65	mg/Kg		E	P	0.01	P1	P182602
7440-43-9	Cadmium	0.95	mg/Kg			P	0.06	P1	P182602
7440-47-3	Chromium	13.0	mg/Kg			P	0.09	P1	P182602
7440-50-8	Copper	48.4	mg/Kg			P	0.18	P1	P182602
7439-92-1	Lead	125	mg/Kg			P	0.22	P1	P182602
7439-97-6	Mercury	0.09	mg/Kg			CV	0.01	CV1	081602C
7440-02-0	Nickel	10.1	mg/Kg			P	0.27	P1	P182602
7782-49-2	Selenium	0.58	mg/Kg	B		P	0.40	P1	P182602
7440-22-4	Silver	0.68	mg/Kg	B		P	0.45	P1	P182602
7440-28-0	Thallium	0.71	mg/Kg	U		P	0.71	P1	P182602
7440-66-6	Zinc	187	mg/Kg			P	0.07	P1	P182602

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

METALS

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: PMK Group SDG No.: P3702 Method Type: SW846

Sample ID: P3702-06 Client ID: TP-4

Contract: PMK Group Lab Code: CHEMED Case No.: SAS No.: P3702

Matrix: SOIL Date Received: 8/9/02 Level: LOW

% Solids: 76

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
40-36-0	Antimony	3.7	mg/Kg	B		P	0.30	P1	P182602
40-38-2	Arsenic	16.6	mg/Kg			P	0.34	P1	P182602
7440-41-7	Beryllium	0.66	mg/Kg		E	P	0.01	P1	P182602
40-43-9	Cadmium	20.2	mg/Kg			P	0.07	P1	P182602
7440-47-3	Chromium	81.5	mg/Kg			P	0.09	P1	P182602
40-50-8	Copper	87.7	mg/Kg			P	0.20	P1	P182602
39-92-1	Lead	245	mg/Kg			P	0.24	P1	P182602
7439-97-6	Mercury	0.14	mg/Kg			CV	0.01	CV1	081602C
40-02-0	Nickel	28.4	mg/Kg			P	0.29	P1	P182602
7782-49-2	Selenium	2.1	mg/Kg			P	0.43	P1	P182602
7440-22-4	Silver	5.9	mg/Kg			P	0.49	P1	P182602
40-28-0	Thallium	0.76	mg/Kg	U		P	0.76	P1	P182602
7440-66-6	Zinc	203	mg/Kg			P	0.08	P1	P182602

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

METALS

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: PMK Group SDG No.: P3702 Method Type: SW846

Sample ID: P3702-07 Client ID: TP-4D

Contract: PMK Group Lab Code: CHEMED Case No.: SAS No.: P3702

Matrix: SOIL Date Received: 8/9/02 Level: LOW

% Solids: 80

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7440-36-0	Antimony	0.89	mg/Kg	B		P	0.28	P1	P182602
7440-38-2	Arsenic	2.6	mg/Kg			P	0.32	P1	P182602
7440-41-7	Beryllium	0.26	mg/Kg	B	E	P	0.01	P1	P182602
7440-43-9	Cadmium	0.20	mg/Kg	B		P	0.06	P1	P182602
7440-47-3	Chromium	7.4	mg/Kg			P	0.09	P1	P182602
7440-50-8	Copper	2.6	mg/Kg	B		P	0.18	P1	P182602
7439-92-1	Lead	2.8	mg/Kg			P	0.22	P1	P182602
7439-97-6	Mercury	0.01	mg/Kg	U		CV	0.01	CV1	081602C
7440-02-0	Nickel	2.9	mg/Kg	B		P	0.27	P1	P182602
7782-49-2	Selenium	0.47	mg/Kg	B		P	0.40	P1	P182602
7440-22-4	Silver	0.45	mg/Kg	U		P	0.45	P1	P182602
7440-28-0	Thallium	0.71	mg/Kg	U		P	0.71	P1	P182602
7440-66-6	Zinc	18.2	mg/Kg			P	0.07	P1	P182602

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

METALS

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: PMK Group SDG No.: P3702 Method Type: SW846

Sample ID: P3702-08 Client ID: TP-13

Contract: PMK Group Lab Code: CHEMED Case No.: SAS No.: P3702

Matrix: SOIL Date Received: 8/9/02 Level: LOW

% Solids: 96

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
40-36-0	Antimony	0.43	mg/Kg	B		P	0.24	P1	P182602
40-38-2	Arsenic	9.5	mg/Kg			P	0.27	P1	P182602
7440-41-7	Beryllium	3.3	mg/Kg		E	P	0.01	P1	P182602
40-43-9	Cadmium	0.05	mg/Kg	U		P	0.05	P1	P182602
7440-47-3	Chromium	9.4	mg/Kg			P	0.07	P1	P182602
7440-50-8	Copper	1.7	mg/Kg	B		P	0.16	P1	P182602
39-92-1	Lead	5.1	mg/Kg			P	0.19	P1	P182602
7439-97-6	Mercury	0.01	mg/Kg	U		CV	0.01	CV1	081602C
40-02-0	Nickel	0.23	mg/Kg	U		P	0.23	P1	P182602
82-49-2	Selenium	0.68	mg/Kg			P	0.34	P1	P182602
7440-22-4	Silver	0.39	mg/Kg	U		P	0.39	P1	P182602
40-28-0	Thallium	0.60	mg/Kg	U		P	0.60	P1	P182602
7440-66-6	Zinc	7.1	mg/Kg			P	0.06	P1	P182602

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

METALS

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: PMK Group **SDG No.:** P3702 **Method Type:** SW846

Sample ID: P3702-09 **Client ID:** TP-10

Contract: PMK Group **Lab Code:** CHEMED **Case No.:** **SAS No.:** P3702

Matrix: SOIL **Date Received:** 8/9/02 **Level:** LOW

% Solids: 76

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
40-36-0	Antimony	0.30	mg/Kg	B		P	0.30	P1	P182602
7440-38-2	Arsenic	0.64	mg/Kg	B		P	0.34	P1	P182602
7440-41-7	Beryllium	0.78	mg/Kg		E	P	0.01	P1	P182602
40-43-9	Cadmium	0.07	mg/Kg	U		P	0.07	P1	P182602
7440-47-3	Chromium	2.1	mg/Kg			P	0.09	P1	P182602
40-50-8	Copper	0.20	mg/Kg	U		P	0.20	P1	P182602
39-92-1	Lead	0.86	mg/Kg			P	0.24	P1	P182602
7439-97-6	Mercury	0.52	mg/Kg			CV	0.01	CV1	081602C
40-02-0	Nickel	0.29	mg/Kg	U		P	0.29	P1	P182602
7782-49-2	Selenium	0.43	mg/Kg	U		P	0.43	P1	P182602
40-22-4	Silver	0.49	mg/Kg	U		P	0.49	P1	P182602
40-28-0	Thallium	0.76	mg/Kg	U		P	0.76	P1	P182602
7440-66-6	Zinc	0.08	mg/Kg	U		P	0.08	P1	P182602

Color Before: BROWN **Clarity Before:** **Texture:** MEDIUM

Color After: YELLOW **Clarity After:** **Artifacts:**

Comments:

METALS

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: PMK Group **SDG No.:** P3702 **Method Type:** SW846

Sample ID: P3702-10 **Client ID:** TP-10D

Contract: PMK Group **Lab Code:** CHEMED **Case No.:** **SAS No.:** P3702

Matrix: SOIL **Date Received:** 8/9/02 **Level:** LOW

% Solids: 79

CAS No.	Analyte	Concentration	Units	C	Qual	M	DL	Instrument ID	Analytical Run
7440-36-0	Antimony	0.29	mg/Kg	U		P	0.29	P1	P182602
440-38-2	Arsenic	0.33	mg/Kg	U		P	0.33	P1	P182602
7440-41-7	Beryllium	0.38	mg/Kg	B	E	P	0.01	P1	P182602
440-43-9	Cadmium	0.06	mg/Kg	U		P	0.06	P1	P182602
440-47-3	Chromium	1.2	mg/Kg	B		P	0.09	P1	P182602
7440-50-8	Copper	0.19	mg/Kg	U		P	0.19	P1	P182602
439-92-1	Lead	0.37	mg/Kg	B		P	0.23	P1	P182602
7439-97-6	Mercury	0.07	mg/Kg			CV	0.01	CV1	081602C
440-02-0	Nickel	0.28	mg/Kg	U		P	0.28	P1	P182602
82-49-2	Selenium	0.41	mg/Kg	U		P	0.41	P1	P182602
7440-22-4	Silver	0.46	mg/Kg	U		P	0.46	P1	P182602
440-28-0	Thallium	0.73	mg/Kg	U		P	0.73	P1	P182602
7440-66-6	Zinc	0.08	mg/Kg	U		P	0.08	P1	P182602

Color Before: BROWN **Clarity Before:** **Texture:** MEDIUM

Color After: YELLOW **Clarity After:** **Artifacts:**

Comments:

GENERAL CHEMISTRY
Analyses Data Sheet

SDG No.: P3702

Sample ID: P3702-01 Client ID: TP-31

Contract: PMK Group Date Collected: 8/9/02 Date Received: 8/9/02

Matrix: SOIL % Solids: 88.00

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.420	mg/Kg	U		1	8/20/02
Cyanide	9012	0.640	mg/Kg			1	8/17/02

Comments:

GENERAL CHEMISTRY
Analyses Data Sheet

SDG No.: P3702

Sample ID: P3702-02 Client ID: TP-33

Contract: PMK Group Date Collected: 8/9/02 Date Received: 8/9/02

Matrix: SOIL % Solids: 89.80

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.392	mg/Kg	U		1	8/20/02
Cyanide	9012	0.620	mg/Kg			1	8/17/02

Comments:

GENERAL CHEMISTRY
Analyses Data Sheet

SDG No.: P3702

Sample ID: P3702-03 Client ID: TP-34

Contract: PMK Group Date Collected: 8/9/02 Date Received: 8/9/02

Matrix: SOIL % Solids: 84.80

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.474	mg/Kg	U		1	8/20/02
Cyanide	9012	< 0.590	mg/Kg	U		1	8/17/02

Comments:

GENERAL CHEMISTRY
Analyses Data Sheet

SDG No.: P3702

Sample ID: P3702-04 Client ID: TP-6D

Contract: PMK Group Date Collected: 8/9/02 Date Received: 8/9/02

Matrix: SOIL % Solids: 74.40

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.680	mg/Kg	U		1	8/20/02
Cyanide	9012	< 0.670	mg/Kg	U		1	8/17/02

Comments:

GENERAL CHEMISTRY
Analyses Data Sheet

SDG No.: P3702

Sample ID: P3702-05 Client ID: TP-6

Contract: PMK Group Date Collected: 8/9/02 Date Received: 8/9/02

Matrix: SOIL % Solids: 82.40

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.517	mg/Kg	U		1	8/20/02
Cyanide	9012	< 0.610	mg/Kg	U		1	8/17/02

Comments:

GENERAL CHEMISTRY
Analyses Data Sheet

SDG No.: P3702

Sample ID: P3702-06 Client ID: TP-4

Contract: PMK Group Date Collected: 8/9/02 Date Received: 8/9/02

Matrix: SOIL % Solids: 76.20

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.640	mg/Kg	U		1	8/20/02
Cyanide	9012	< 0.660	mg/Kg	U		1	8/17/02

Comments:

GENERAL CHEMISTRY
Analyses Data Sheet

SDG No.: P3702

Sample ID: P3702-07 Client ID: TP-4D

Contract: PMK Group Date Collected: 8/9/02 Date Received: 8/9/02

Matrix: SOIL % Solids: 80.00

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.562	mg/Kg	U		1	8/20/02
Cyanide	9012	< 0.630	mg/Kg	U		1	8/17/02

Comments:

GENERAL CHEMISTRY
Analyses Data Sheet

SDG No.: P3702

Sample ID: P3702-08 Client ID: TP-13

Contract: PMK Group Date Collected: 8/9/02 Date Received: 8/9/02

Matrix: SOIL % Solids: 96.20

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.299	mg/Kg	U		1	8/20/02
Cyanide	9012	7.14	mg/Kg			1	8/17/02

Comments:

GENERAL CHEMISTRY
Analyses Data Sheet

SDG No.: P3702

Sample ID: P3702-09 Client ID: TP-10

Contract: PMK Group Date Collected: 8/9/02 Date Received: 8/9/02

Matrix: SOIL % Solids: 75.70

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	3.30	mg/Kg			1	8/20/02
Cyanide	9012	< 0.660	mg/Kg	U		1	8/17/02

Comments:

GENERAL CHEMISTRY
Analyses Data Sheet

SDG No.: P3702

Sample ID: P3702-10 Client ID: TP-10D

Contract: PMK Group Date Collected: 8/9/02 Date Received: 8/9/02

Matrix: SOIL % Solids: 79.40

Analyte	Method	Result	Units	C	Qual	DF	Analytical Date
Phenol	EPA 420.1	< 1.574	mg/Kg	U		1	8/20/02
Cyanide	9012	< 0.630	mg/Kg	U		1	8/17/02

Comments: