



DEPARTMENT OF THE ARMY

OFFICE OF ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
U.S. ARMY FORT MONMOUTH
P.O. 148
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November 26, 2014

Linda S. Range
State of New Jersey
Department of Environmental Protection
Bureau of Case Management
401 East Side Street
PO Box 420/Mail Code 401-05F
Trenton, NJ 08625-0028

Subject: State of New Jersey Department of Environmental Protection Comments on the Final Baseline Groundwater Sampling Report (August 2013) Fort Monmouth, Oceanport, Monmouth County. PI G000000032

**Attachments: A. 2009 Temporary Well Points and Analytical Data
B. Revised Table 7**

Dear Ms. Range:

Fort Monmouth (FTMM) and Parsons have reviewed the New Jersey Department of Environmental Protection (NJDEP) comments on the Final Baseline Groundwater Sampling Report (August 2013) as documented in your letter dated July 3, 2014. Response to your comments are provided below in the order in which they were presented in the comment letter.

A. GENERAL COMMENT/STATEMENT:

The New Jersey Department of Environmental Protection (Department) has completed review of the referenced report, dated March 2014, received on April 7, 2014. The report was prepared by Parsons Government Services Inc. (Parsons), in support of the Remedial Investigation (RI), Feasibility Study (FS), and Decision Documents project at Fort Monmouth.

A baseline ground water sampling event was conducted at 21 "sites" at the Fort Monmouth property in August 2013. The purpose of the sampling event was to re-establish baseline conditions following suspension of ground water sampling in late 2011, as well as to evaluate Fort Monmouth's long-term ground water sampling program, and the current analytical conditions of the ground water at each site. Sampling methodologies used included low-flow and passive diffusion bag samplers (PDBS). At four sites (FTMM-14, 18, 59, 68), only PDBS sampling was conducted. At three sites (FTMM-05, 22, 58) both low-flow and PDBS samples were obtained for comparison purposes. Fourteen (14) sites were only sampled using low-flow. The report states that PDBS concentrations were consistently biased somewhat low compared to the low-flow

concentrations. The report concludes, however, that the PDBS results were still similar to the low-flow results and are considered representative of ground water conditions at the sites. Based on this conclusion, the report states that for future ground water sampling, PDBS will be used for all sites where volatile organic compounds (VOCs) are the sole contaminants of concern. Comments are presented below.

Section 3.1; Table 6; Appendices & associated Tables - The "background concentrations" submitted in the 1995 Weston report were not accepted by the Department as representative of background conditions for Fort Monmouth. The study was not performed in accordance with Departmental protocol and is not a consideration in our evaluations/determinations. As indicated in Section 3.1, background concentrations are evaluated on a site by site basis.

A. RESPONSE: Acknowledged,

B. FTMM-02 Landfill

B. COMMENT: Historic sampling at this parcel indicated levels of VOCs above the Ground Water Quality Standard (GWQS); metals were previously determined to be reflective of naturally occurring conditions. The August 2013 sampling of wells using low-flow confirmed the continued exceedance of the GWQS for VOCs. The report recommends VOC sampling of wells M2MW03, M2MW11, M2MW21, M2MW22 and M2MW24 for two additional rounds using PDBS. Well M2MW10 will be monitored as a down gradient sentinel well. Although the proposal is acceptable, for wells in which the saturated screen length exceeds 10 feet, the deployment of multiple PDBS will be required. At any point where a decision is made to terminate ground water sampling at this site, confirmatory sampling using low-flow due to PDBS biasing low as compared to low-flow results at the Fort Monmouth site will be required.

B1. RESPONSE: Agreed.

C. FTMM-03 Landfill

C. COMMENT: Historic sampling at this parcel revealed GWQS exceedances of vinyl chloride and metals. The August 2013 sampling of wells using low-flow confirmed the continued exceedance of the GWQS for vinyl chloride in well 3MW07. Well 3MW02 was not sampled due to low water column and silty conditions; however, Table 4 of Appendix B recommends sampling of 3MW02 for VOCs and metals. The report attributes the presence of vinyl chloride to leaching of PVC piping from well 3MW07. A temporary well point investigation was conducted in 2009 to delineate the vinyl chloride, the results were non-detect, and abandonment of 3MW07 is recommended. The recommendations are acceptable. However, a figure presenting the locations and sampling results from the 2009 temporary well point investigation must be provided to the Department.

C. RESPONSE: A figure showing the location of 2009 temporary well points and the associated groundwater analytical data are provided in **Attachment A**. Therefore, FTMM will abandon 3MW07 in accordance with NJDEP well abandonment procedures.

D. FTMM-04 Landfill

D. COMMENT: Historic sampling at this parcel revealed GWQS exceedances of various metals. The August 2013 sampling of wells using low-flow confirmed the continued exceedance of the GWQS for metals. The metals are attributed to background conditions, and cessation of ground water sampling is recommended. The recommendation is acceptable. Monitoring wells at this

parcel shall be properly abandoned if they are no longer subject to sampling or gaging for water elevation data.

D. RESPONSE: Agreed.

E. FTMM-05 Landfill

E. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of PCE, TCE and vinyl chloride, which the August 2013 sampling, using low-flow and PDBS, confirmed. The report recommends annual VOC sampling of wells M5MW11, M5MW16, M5MW20 and M5MW23 using PDBS. The Department finds the proposal to be acceptable. At any point where a decision is made to terminate ground water sampling at this parcel, the Department will require confirmatory sampling using low-flow due to PDBS results at this parcel biased low compared to the low-flow results.*

E. RESPONSE: Agreed.

F. FTMM-08 Landfill

F. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of pesticides, benzene, PCE and lead. The August 2013 sampling of wells using low-flow confirmed the exceedance of the GWQS for PCE and lead. The well with historic pesticide exceedances (697MW01) could not be located and was not sampled. The report recommends annual ground water sampling of well M8MW11 for VOCs and lead, M8MW12, 15, 16 and 24 for VOCs and M8MW17 and 21 for lead only. Monitoring well 697MW01 will be located and sampled for pesticides, lead and VOCs. The recommendation is acceptable.*

F. RESPONSE: Agreed.

G. FTMM-12 Landfill

G. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of various metals, including arsenic and lead. Historic exceedances of metals except for lead are attributed to background quality. The August 2013 sampling was conducted for lead analysis only. Lead was not detected. The report recommends discontinuing ground water sampling at this parcel. The Department finds the recommendation to be acceptable. Monitoring wells at this parcel shall be properly abandoned if they are no longer subject to sampling or gauging for water elevation data.*

G. RESPONSE: Agreed.

H. FTMM-14 Landfill

H. COMMENT: *Historic sampling at this parcel revealed no GWQS exceedances of VOCs. The August 2013 sampling of wells using PDBS confirmed that there was no exceedance of the GWQS. The report recommends discontinuing ground water sampling at this parcel. The Department finds the recommendation to be acceptable. Monitoring wells at this parcel shall be properly abandoned if they are no longer subject to sampling or gaging for water elevation data. The Department also notes that on Table 1, well M14MW19 is listed as having 10 feet of total screen length. However, the table also lists the saturated screen length as 13.35 feet. This discrepancy should be clarified.*

H. RESPONSE: Agreed. The saturated screen thickness for M14MW19 is 10 feet.

I. FTMM-18 Landfill

I. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of benzene and 1,2-DCA. The August 2013 sampling results of wells using PDBS showed the exceedance of the GWQS for 1,2-DCA in well M18MW22. Well M18MW23 could not be located and was not sampled. The report recommends annual ground water sampling using PDBS for M18MW22 and M18MW23 if it can be located. Every reasonable effort, such as reviewing the NJ State Plane Coordinates of the well, must be made to locate M18MW23. The use of M18MW22 as the sole monitoring well at this parcel will not be acceptable due to the vast difference in historical concentrations between M18MW22 and M18MW23. Historic 2011 benzene concentrations for M18MW23 were 775 ppb and 664 ppb while 2011 concentrations for M18MW22 were 1.81 ppb and 1.65 ppb. The Department cannot approve the use of PDBS sampling only for this parcel. Once M18MW23 is located, the Department can approve the use of both PDBS and low-flow sampling for comparison purposes.*

I. RESPONSE: M18MW23 has been located and will be sampled using PDB methodology during the 2014 annual sampling event, as the historical concentrations of benzene are appropriate for the use of PDBs. FTMM believes that there is enough low flow data (four sampling events over two years) to characterize the concentrations of the volatile constituents in M18MW23 and that a low-flow PDB comparison is not needed for this well. FTMM will vertically profile this well using PDBs should the saturated screen be greater than 10 feet. In addition to the sampling of M18MW23, M18MW22 will also be sampled using PDB methodology and analyzed for VOCs.

J. FTMM-22 Former Wastewater Treatment Lime Pit

J. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of TCE. The August 2013 sampling of wells using low-flow and PDBS confirmed the continued exceedance of the GWQS for TCE in ground water. The report recommends quarterly VOC sampling of wells CW1MW27, CW1MW29, CW1MW31 and CW1MW281 using PDBS. The Department finds the proposal to be acceptable. At any point where a decision is made to terminate ground water sampling at this parcel, the Department will require confirmatory sampling using low-flow due to PDBS results biasing low compared to low-flow results at the Fort Monmouth site.*

J. RESPONSE: Agreed.

K. FTMM-25 Landfill

K. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of various metals. The August 2013 sampling of wells using low-flow confirmed the continued exceedance of the GWQS for metals. The metals are attributed to background conditions. The report recommends discontinuing ground water sampling at this parcel. The Department finds the recommendation to be acceptable. Monitoring wells at this parcel shall be properly abandoned if they are no longer subject to sampling or gauging for water elevation data.*

K. RESPONSE: Agreed.

L. FTMM-53 Building 699

L. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of benzene, PCE, TCE, TBA, VOC TICs and lead. The August 2013 sampling of wells using low-flow showed the exceedance of the GWQS for benzene, xylenes, PCE, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene and VOC TICs. The report recommends quarterly VOC sampling of wells*

699MW01, 699MW04, 699MW06, 699MW09, 699MW16, 699RW03, 699RW05 and 699RW11 using PDBS. The Department finds the proposal to be acceptable. For wells in which the saturated screen length exceeds 10 feet, the deployment of multiple PDBS will be required. At any point where a decision is made to terminate ground water sampling at this parcel, the Department will require confirmatory sampling using low-flow due to PDBS biasing low compared to low-flow at the Fort Monmouth site.

L. RESPONSE: Agreed.

M. FTMM-54 Building 296

M. COMMENT: Historic sampling at this parcel revealed GWQS exceedances of benzene, lead and arsenic. The metals are attributed to background conditions. The August 2013 sampling of wells using low-flow showed an exceedance of the GWQS for benzene. The report recommends annual VOC sampling of wells 269MW04 and 296MW06 using PDBS. The Department finds the proposal to be acceptable. For wells in which the saturated screen length exceeds 10 feet, the deployment of multiple PDBS will be required. At any point where a decision is made to terminate ground water sampling at this parcel, the Department will require confirmatory sampling using low-flow due to PDBS biasing low compared to low-flow at the Fort Monmouth site.

M. RESPONSE: Agreed.

N. FTMM-55 Building 290

N. COMMENT: Historic sampling at this parcel revealed GWQS exceedances of arsenic and lead. The August 2013 sampling of wells using low-flow confirmed the continued exceedance of the GWQS for lead. The metals are attributed to background conditions. The report recommends discontinuing ground water sampling at this parcel. The Department finds the recommendation to be acceptable. Monitoring wells at this parcel shall be properly abandoned if they are no longer subject to sampling or gauging for water elevation data.

N. RESPONSE: Agreed.

O. FTMM-56 Building 80

O. COMMENT: Historic sampling at this parcel revealed GWQS exceedances of chlordane, arsenic, lead and cadmium. The August 2013 sampling of wells was conducted for lead only using low-flow. There were no exceedances of lead. The report recommends one additional sampling round of well 80MW02 for chlordane and 80MW05 for lead. The Department finds the recommendation for well 80MW02 to be acceptable. The Department disagrees with the recommendation to sample well 80MW05 for lead only. The last low-flow sampling event in August 2011 had lead, arsenic and cadmium exceeding both the GWQS and background concentrations. Well 80MW05 shall be sampled during the next round for TAL metals.

O. RESPONSE: Acknowledged. FTMM will modify the analysis method from lead only to lead, arsenic and cadmium at well 80MW05.

P. FTMM-57 Building 108

P. COMMENT: Historic sampling at this parcel revealed GWQS exceedances of lead. In the August 2013 sampling event, there were no exceedances of lead in ground water. The report recommends two additional sampling rounds of well 108MW04 for lead. The Department finds the recommendation acceptable.

P. RESPONSE: Agreed.

Q. FTMM-58 Building 2567

Q. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of TBA in wells 2567MW01 and 2567MW03. The August 2013 sampling results using low-flow and PDBS were below the GWQS for TBA. The report recommends two annual sampling events for TBA analyses of wells 2567MW01 and 2567MW03 using low-flow. The Department finds the proposal to be acceptable.*

Q. RESPONSE: Agreed.

R. FTMM-59 Building 1122

R. COMMENT: *Historic sampling at this parcel revealed no GWQS exceedances for VOCs. The August 2013 sampling results of wells using PDBS showed no exceedance of VOCs. The text of the report recommends VOC sampling of well 1122MW07 for one additional sampling round to confirm the 2013 results because August 2013 was the first time this well was sampled. The Department finds the proposal to be acceptable. The Department also notes that there is a discrepancy between the recommendation in the text and the recommendation in Table 7. Table 7 recommends that sampling at this parcel be discontinued. Table 7 shall be amended to indicate well 1122MW07 will be sampled for VOCs using PDBS methodology.*

R. RESPONSE: Monitoring well 1122MW07 will be sampled for one additional round during the 2014 annual sampling event using PDB methods. The sample will be analyzed for VOCs. Table 7 has been amended and provided as **Attachment B**.

S. FTMM-61 Building 283

S. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of metals, benzene and VOC TICs in 283MW02. The August 2013 sampling of wells using low-flow for VOCs and lead showed no exceedances. The report recommends VOC sampling of well 283MW02 for one additional sampling round using PDBS methodology to confirm the 2013 results. The Department finds the proposal to be conditionally acceptable. If the saturated screen length exceeds 10 feet, the deployment of multiple PDBS will be required. If a decision is made to terminate ground water sampling at this parcel based on PDBS results, the Department will require confirmatory sampling using low-flow due to PDBS biasing low compared to low-flow at the Fort Monmouth site.*

S. RESPONSE: Acknowledged. Because the next annual sampling round is intended to be the last round, FTMM will sample 283MW02 using LFPS method.

T. FTMM-64 Building 812

T. COMMENT: *Historic sampling at this parcel revealed GWQS exceedances of benzene, vinyl chloride and metals. The August 2013 sampling of wells using low-flow for VOCs and lead showed no exceedances. The report recommends VOC sampling of well 812MW04 for one additional sampling round using PDBS methodology to confirm the 2013 results (however Section 5.0 recommends sampling be continued on an annual basis). The Department finds the proposal to be conditionally acceptable. If the saturated screen length exceeds 10 feet, the deployment of multiple PDBS will be required. If a decision is made to terminate ground water sampling at this parcel based on PDBS results, the Department will require confirmatory sampling using low-flow due to PDBS biasing low compared to low-flow at the Fort Monmouth site.*

T. **RESPONSE:** Acknowledged. Because the next annual sampling round is intended to be the last round, FTMM will sample 812MW04 using LFPS method.

U. **FTMM-66 Building 886**

U. **COMMENT:** *Historic sampling at this parcel revealed GWQS exceedances of benzene, VOC TICs, arsenic and lead. The August 2013 sampling results from wells using low-flow showed the exceedance of the GWQS for SVOC TICs. The report recommends that sampling at this parcel be discontinued. The Department finds the recommendation unacceptable. Total SVOC TICs exceeded the GWQS of 500 ppb in wells 886RW01 and 886RW06. Ground water monitoring of wells 886RW01, 886RW06 and 886RW08 shall continue for SVOC+TICs using low-flow methodology.*

U. **RESPONSE:** Agreed. FTMM will continue to monitor 886RW01, 886RW06 and 886RW08 at FTMM-66 for SVOC+TICs using the LFPS method for two additional annual rounds.

V. **FTMM-68 Building 700**

V. **COMMENT:** *There are no historic sampling results for this parcel. The August 2013 sampling results of wells using PDBS showed the exceedance of the GWQS for PCE, TCE, cis-1,2-DCE and vinyl chloride in wells 565MW01 and 565MW01D. The report recommends quarterly ground water sampling for VOC+TICs using PDBS for these 2 wells. The Department agrees with the recommendation of quarterly sampling, however, has concerns regarding the use of PDBS for long-term monitoring at this parcel. Unlike the other Fort Monmouth parcels, there are no historical ground water sampling data for comparison with the PDBS results. The DEP's Field Sampling Procedures Manual states that "the intended application of Passive Diffusion Bag Samplers (PDBS) is for long-term monitoring of volatile organic compounds (VOCs) in ground water at well-characterized sites." The Department would find long-term sampling of the wells using PDBS acceptable if low-flow sampling is conducted concurrently once or twice for comparison.*

V. **RESPONSE:** Fort Monmouth agrees that FTMM-68 has not been fully characterized, however a remedial investigation (RI) is proposed for this site in the near future and the sampling of existing and proposed wells using the LFPS method is proposed in the RI. In the meantime Fort Monmouth proposes to continue to use PDBs to characterize the concentrations. The two existing wells are located in the potential source area and the detected VOCs have a high enough concentration that PDBs, while they tend to bias low, can effectively capture the nature of the VOC concentrations. A work plan for the RI has been submitted to NJDEP and is awaiting approval. During the RI the two existing wells along with new wells will be sampled using LFPS methods and a PDB/LFPS comparison will be made at that time. Additionally, once the RI is complete, a revised long-term monitoring plan will be submitted.

W. **GENERAL COMMENT/STATEMENT:**

Finally, each of the above comments speak only to the ground water findings and recommendations included in the referenced submittal, rather than to the ground water at the entire site.

W. **RESPONSE:** Acknowledged.

Please contact me if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Wanda Green".

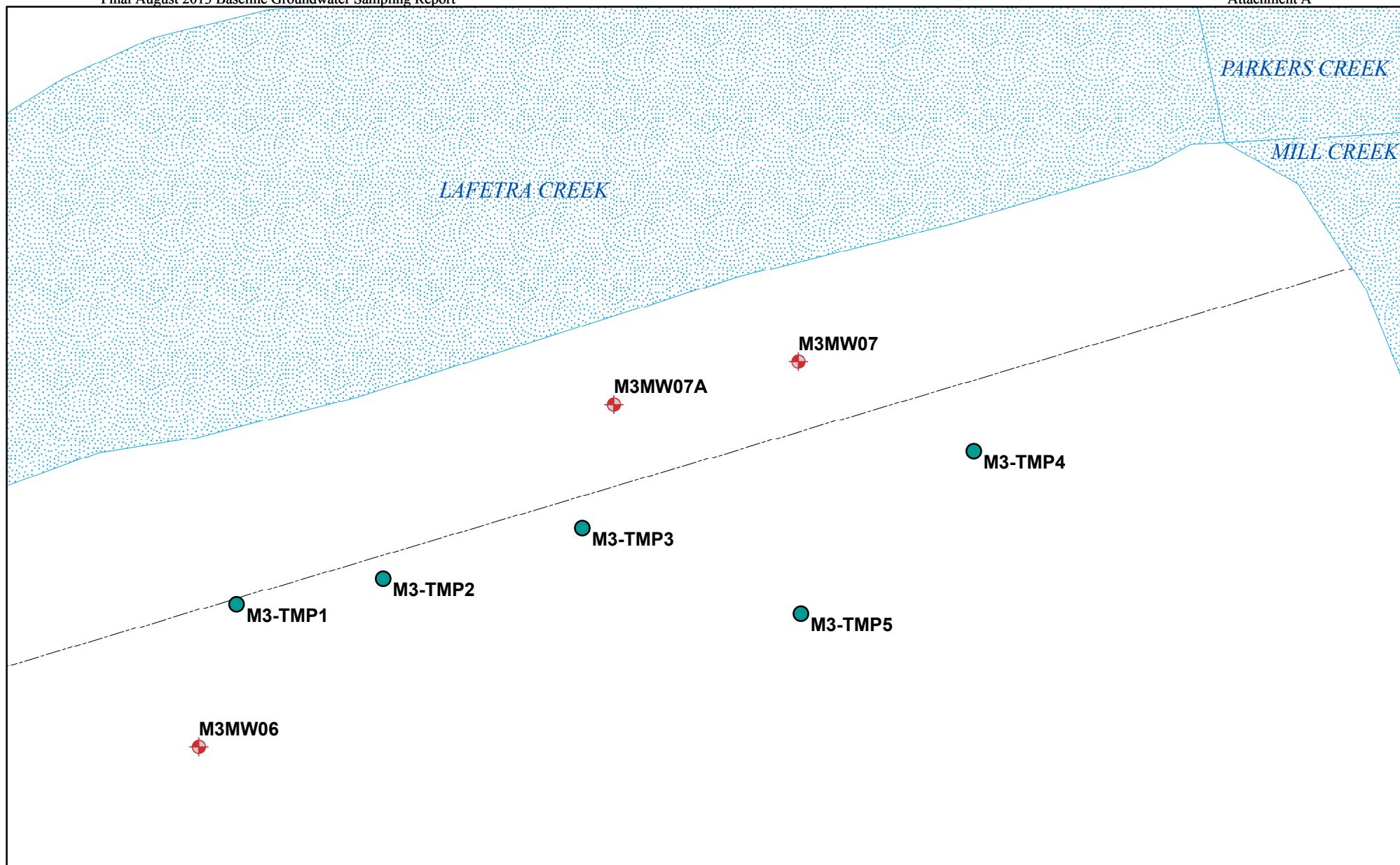
Wanda Green
BRAC Environmental Coordinator
OACSIM – U.S. Army Fort Monmouth

Cc: Parsons
USACE

Encl

ATTACHMENT A

**M-3 Landfill Temporary Well Points (February 8, 2011) and Analytical
Data Report (November 2, 2009)**



0 10 20 40 Feet



M-3 Landfill Temporary Well Points Fort Monmouth, New Jersey

Legend

- Monitoring Well
- Temp. Wells
- Water Body
- Post Boundaries

Map Created by:
Fort Monmouth Installation GIO, Environmental Division
Fort Monmouth, New Jersey
Date: February 8, 2011
New Jersey State Plane Feet, NAD83
All drawings must be field verified.

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS

PHONE: (732) 532-6224 FAX: (732) 532-6263

WET-CHEM - METALS - ORGANICS - FIELD SAMPLING

CERTIFICATIONS: NJDEP #13461

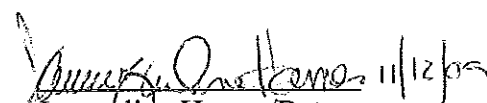


ANALYTICAL DATA REPORT Fort Monmouth Environmental Laboratory ENVIRONMENTAL DIVISION Fort Monmouth, New Jersey PROJECT: M3 Landfill

M3/Landfill

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time of Collection	Date Received
M3-TMP-01A	9043301	Aqueous	02-Nov-09 10:14	11/02/09
M3-TMP-01B	9043302	Aqueous	02-Nov-09 10:44	11/02/09
M3-TMP-02A	9043303	Aqueous	02-Nov-09 11:15	11/02/09
M3-TMP-02B	9043304	Aqueous	02-Nov-09 11:35	11/02/09
M3-TMP-03A	9043305	Aqueous	02-Nov-09 13:33	11/02/09
M3-TMP-03B	9043306	Aqueous	02-Nov-09 13:50	11/02/09
M3-TMP-04A	9043307	Aqueous	02-Nov-09 14:15	11/02/09
M3-TMP-04B	9043308	Aqueous	02-Nov-09 14:30	11/02/09
M3-FB	9043309	Aqueous	02-Nov-09 14:40	11/02/09
M3-TMP-05A	9043310	Aqueous	02-Nov-09 15:15	11/02/09
Trip Blank	9043311	Aqueous	02-Nov-09 08:25	11/02/09
M3-TMP-05B	9043312	Aqueous	02-Nov-09 13:40	11/02/09

ANALYSIS: FORT MONMOUTH ENVIRONMENTAL LAB VOA+15


Jacqueline Hamer/Date: 11/12/09
QA/QC Supervisor

The enclosed report relates only to the items tested. The report may not be reproduced, except in full, without written approval of the U.S. Army Fort Monmouth Directorate of Public Works.

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CHAIN OF CUSTODY

Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703

Tel (732)532-4359 Fax (732)532-6263 EMail:jacqueline.hamer@us.army.mil

NJDEP Certification #13461

Chain of Custody Record

Customer: Joe Fallon				Project No:		Analysis Parameters								Comments:	
Phone #: 732-532-6223				Location: M3		V0+15									
() DERA () OMA () Other: BRAC															
Samplers Name / Company: John Montgomery				Sample #										Remarks / Preservation Method	
LIMS/Work Order #	Sample Location	Date	Time	Type	bottles										
90433 01	M3-TMP-01A	11-2-09	1014	AQ	2	X									
02	M3-TMP-01B	11-2-09	1044	AQ	2	X									
03	M3-TMP-02A	11-2-09	1115	AQ	2	X									
04	M3-TMP-02B	11-2-09	1135	AQ	2	X									
05	M3-TMP-03A	11-2-09	1333	AQ	2	X									
06	M3-TMP-03B	11-2-09	1350	AQ	2	X									
07	M3-TMP-04A	11-2-09	1415	AQ	2	X									
08	M3-TMP-04B	11-2-09	1430	AQ	2	X									
09	M3-FB	11-2-09	1440	AQ	2	X									
10	M3-TMP-05A	11-2-09	1515	AQ	2	X									
11	Trip Blank	11-2-09	825	AQ	2	X									
12	M3-TMP-05B	11-2-09	1340	AQ	2	X									
Relinquished by (signature): John Montgomery				Date/Time: 11-2-09 1550		Received by (signature): J. L. [Signature]				Relinquished by (signature):		Date/Time:		Received by (signature):	
Relinquished by (signature):				Date/Time:		Received by (signature):				Relinquished by (signature):		Date/Time:		Received by (signature):	
Report Type: () Full, () Reduced, (X) Standard, () Screen / non-certified, () EDD Full X						Comments:									
Turnaround time: () Standard 3 wks, (X) Rush Wk., () ASAP Verbal ___ Hrs.															

print legibly

SAMPLE RECEIPT FORM

Date Received: 11-2-09

Work Order ID#: 90433

Site/Proj. Name: M3/Landfill

Cooler Temp (°C): ICE

Received By: J. Vergara
(Print name)

Sign: [Signature]

Check the appropriate box

- | | |
|---|--|
| 1. Did the samples come in a cooler? | ☒ yes ☐ no ☐ n/a |
| 2. Were samples rec'd in good condition? | ☒ yes ☐ no |
| 3. Was the chain of custody filled out correctly and legibly? | ☒ yes ☐ no |
| 4. Was the chain of custody signed in the appropriate place? | ☒ yes ☐ no |
| 5. Did the labels agree with the chain of custody? | ☒ yes ☐ no |
| 6. Were the correct containers/preservatives used? | ☒ yes ☐ no |
| 7. Was a sufficient amount of sample supplied? | ☒ yes ☐ no |
| 8. Were air bubbles present in VOA vials? | ☐ yes ☒ no ☐ n/a |
| 9. Were samples received on ice? | ☒ yes ☐ no |
| 10. Were analyze-immediately tests perform within 15 minutes | ☐ yes ☐ no ☒ n/a |

Fill out the following table for each sample bottle

Lims ID	pH	Preservative	Sample ID	pH	Preservative

Comments: _____

METHOD SUMMARY

Method Summary

EPA Method 624—Aqueous Gas Chromatographic Determination of Volatiles in Water

A 5-ml volume of sample is added to 5-ml aliquot of water. Surrogates and internal standards are added and the sample is placed on a purge and trap concentrator. The sample is purged and desorbed into a GC/MS system. Volatiles are then identified and quantitated.

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 90433

Site: M3/LANDFILL

	Date	Hold Time
Date Sampled	11/02/09	NA
Receipt/Refrigeration	11/02/09	NA
 Analyses		
1. Volatile Organics	11/03/09	14 Days

CONFORMANCE/ NON-CONFORMANCE SUMMARY

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

	Indicate Yes, No, N/A
1. Chromatograms labeled/Compounds identified (Field samples and method blanks)	<u>yes</u>
2. Retention times for chromatograms provided	<u>yes</u>
3. GC/MS Tune Specifications	
a. BFB Meet Criteria	<u>yes</u>
b. DFTPP Meet Criteria	<u>NA</u>
4. GC/MS Tuning Frequency – Performed every 24 hours for 600 series and 12 hours for 8000 series	<u>yes</u>
5. 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	<u>yes</u>
6. GC/MS Calibration requirements	
a. Calibration Check Compounds Meet Criteria	<u>yes</u>
b. System Performance Check Compounds Meet Criteria	<u>yes</u>
7. Blank Contamination – If yes, List compounds and concentrations in each blank:	<u>NO</u>
a. VOA Fraction _____	
b. B/N Fraction <u>NA</u>	
c. Acid Fraction <u>NA</u>	
8. Surrogate Recoveries Meet Criteria	<u>yes</u>
If not met, list those compounds and their recoveries, which fall outside the acceptable range:	
a. VOA Fraction _____	
b. B/N Fraction <u>NA</u>	
c. Acid Fraction <u>NA</u>	
If not met, were the calculations checked and the results qualified as "estimated"? _____	
9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries, which fall outside the acceptable range)	<u>NO</u>
a. VOA Fraction <u>Some compounds failed with high recoveries</u>	
b. B/N Fraction <u>NA</u>	
c. Acid Fraction <u>NA</u>	

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT (cont.)

Indicate
Yes, No, N/A

10. Internal Standard Area/Retention Time Shift Meet Criteria
(If not met, list those compounds, which fall outside the acceptable range)

Yes

- a. VOA Fraction _____
b. B/N Fraction NA
c. Acid Fraction NA

11. Extraction Holding Time Met

NA

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

12. Analysis Holding Time Met

Yes

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

Additional Comments:

Laboratory Manager: James A. Hester Date: 11/12/09

VOLATILE ORGANICS

**US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEP CERTIFICATION # 13461**

Definition of Qualifiers

- U:** The compound was analyzed for but not detected.
- B:** Indicates that the compound was found in the associated method blank as well as in the sample.
- J:** Indicates an estimated value. This flag is used:
- (1)** When the mass spec and retention time data indicate the presence of a compound however the result is less than the reporting limit but greater than the MDL.
 - (2)** When estimating the concentration of a tentatively identified compound (TIC), where a 1:1 response is assumed.
- D:** This flag is used to identify all compounds (target or TIC) that required a dilution.
- E:** Indicates the compound's concentration exceeds the calibration range of the instrument for that specific analysis.
- N:** This flag is only used for TICs. It indicates the presumptive evidence of a compound. For a generic characterization of a TIC, such as unknown hydrocarbon, the flag is not used.

Volatile Analysis Report **U.S. Army, Fort Monmouth Environmental Laboratory** **NJDEP Certification #13461**

Data File **VA4808.D**
Operator **ROBERTS**
Date Acquired **3 Nov 2009 3:24 pm**

Sample Name **MB11030901**
Field ID **METHOD 624 11/3/09**
Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J = Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MB11030901

Lab Name: FMETL Contract: _____
Lab Code: 13461 Case No.: MW SAS No.: _____ SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: MB11030901
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4808.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. _____ Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report **U.S. Army, Fort Monmouth Environmental Laboratory** **NJDEP Certification #13461**

Data File **VA4820.D**
Operator **ROBERTS**
Date Acquired **3 Nov 2009 9:35 pm**

Sample Name **9043311**
Field ID **M-3 TRIP BLANK**
Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l) ^a	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

J= Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

R.L. = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

M3-TRIP BLANK

Lab Name: FMETL Contract: _____
Lab Code: 13461 Case No.: MW SAS No.: _____ SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043311
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4820.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. _____ Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L
Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report **U.S. Army, Fort Monmouth Environmental Laboratory** **NJDEP Certification #13461**

Data File **VA4818.D**
Operator **ROBERTS**
Date Acquired **3 Nov 2009 8:33 pm**

Sample Name **9043309**
Field ID **M-3 FB**
Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J = Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

M3-FB

Lab Name: FMETL Contract: _____
Lab Code: 13461 Case No.: MW SAS No.: _____ SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043309
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4818.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. _____ Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report **U.S. Army, Fort Monmouth Environmental Laboratory** **NJDEP Certification #13461**

Data File **VA4810.D**
Operator **ROBERTS**
Date Acquired **3 Nov 2009 4:26 pm**

Sample Name **9043301**
Field ID **M-3 TMP-01A**
Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J = Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

M3-TMP-01A

Lab Name: FMETL Contract: _____
Lab Code: 13461 Case No.: MW SAS No.: _____ SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043301
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4810.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. _____ Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report **U.S. Army, Fort Monmouth Environmental Laboratory** **NJDEP Certification #13461**

Data File **VA4811.D**
Operator **ROBERTS**
Date Acquired **3 Nov 2009 4:57 pm**

Sample Name **9043302**
Field ID **M-3 TMP-01B**
Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J = Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

M3-TMP-01B

Lab Name: FMETL Contract: _____
Lab Code: 13461 Case No.: MW SAS No.: _____ SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043302
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4811.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. _____ Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report **U.S. Army, Fort Monmouth Environmental Laboratory** **NJDEP Certification #13461**

Data File **VA4812.D**
Operator **ROBERTS**
Date Acquired **3 Nov 2009 5:27 pm**

Sample Name **9043303**
Field ID **M-3 TMP-02A**
Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J = Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

M3-TMP-02A

Lab Name: FMETL Contract: _____
Lab Code: 13461 Case No.: MW SAS No.: _____ SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043303
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4812.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. _____ Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report **U.S. Army, Fort Monmouth Environmental Laboratory** **NJDEP Certification #13461**

Data File **VA4813.D**
Operator **ROBERTS**
Date Acquired **3 Nov 2009 5:58 pm**

Sample Name **9043304**
Field ID **M-3 TMP-02B**
Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J = Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

M3-TMP-02B

Lab Name: FMETL Contract: _____
Lab Code: 13461 Case No.: MW SAS No.: _____ SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043304
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4813.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. _____ Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L
Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report **U.S. Army, Fort Monmouth Environmental Laboratory** **NJDEP Certification #13461**

Data File **VA4814.D**
 Operator **ROBERTS**
 Date Acquired **3 Nov 2009 6:29 pm**

Sample Name **9043305**
 Field ID **M-3 TMP-03A**
 Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene	15.75	7105	0.20 ug/L	50	0.15 ug/L	0.50 ug/L	J
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene	16.89	10649	0.29 ug/L	100	0.12 ug/L	0.50 ug/L	J
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

J = Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

RL = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

M3-TMP-03A

Lab Name: FMETL Contract: _____
Lab Code: 13461 Case No.: MW SAS No.: _____ SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043305
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4814.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. _____ Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

Number TICs found: 3

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	Alkene: Branched	11.47	5	J
2.	Alkane: Cyclic	12.84	4	J
3.	Alkane: Cyclic	13.41	3	J

Volatile Analysis Report **U.S. Army, Fort Monmouth Environmental Laboratory** **NJDEP Certification #13461**

Data File **VA4815.D**
Operator **ROBERTS**
Date Acquired **3 Nov 2009 7:00 pm**

Sample Name **9043306**
Field ID **M-3 TMP-03B**
Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethane			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene	15.75	18444	0.48 ug/L	50	0.15 ug/L	0.50 ug/L	J
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene	16.89	16127	0.40 ug/L	100	0.12 ug/L	0.50 ug/L	J
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J = Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

M3-TMP-03B

Lab Name: FMETL Contract: _____
Lab Code: 13461 Case No.: MW SAS No.: _____ SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043306
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4815.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. _____ Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

Number TICs found: 13

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	Alkane: Cyclic	9.14	11	J
2.	unknown hydrocarbon	10.24	4	J
3.	Alkane: Cyclic	10.39	8	J
4.	Alkane: Cyclic	10.47	9	J
5.	Alkane: Cyclic	10.55	14	J
6.	Alkane: Cyclic	11.47	32	J
7.	Alkane: Cyclic	11.78	3	J
8.	Alkane: Cyclic	11.99	4	J
9.	Alkane: Cyclic	12.83	18	J
10.	Alkane: Cyclic	13.15	6	J
11.	Alkane: Cyclic	13.41	14	J
12.	Alkane: Cyclic	13.55	7	J
13.	Alkane: Cyclic	14.24	8	J

Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File **VA4816.D**
Operator **ROBERTS**
Date Acquired **3 Nov 2009 7:31 pm**

Sample Name **9043307**
Field ID **M-3 TMP-04A**
Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene	15.75	13791	0.39 ug/L	50	0.15 ug/L	0.50 ug/L	J
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

J = Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

R.L. = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

M3-TMP-04A

Lab Name: FMETL Contract: _____
Lab Code: 13461 Case No.: MW SAS No.: _____ SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043307
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4816.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. _____ Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

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

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File VA4817.D
Operator ROBERTS
Date Acquired 3 Nov 2009 8:02 pm

Sample Name 9043308
Field ID M-3 TMP-04B
Sample Multiplier 1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene	11.42	8647	0.63 ug/L	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank
E = Value above linear range
D = Value from dilution
PQL = Practical Quantitation Limit
J = Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit
NLE = No Limit Established
R.T. = Retention Time
R.L. = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

M3-TMP-04B

Lab Name: FMETL Contract: _____
Lab Code: 13461 Case No.: MW SAS No.: _____ SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043308
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4817.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. _____ Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report **U.S. Army, Fort Monmouth Environmental Laboratory** **NJDEP Certification #13461**

Data File **VA4819.D**
 Operator **ROBERTS**
 Date Acquired **3 Nov 2009 9:04 pm**

Sample Name **9043310**
 Field ID **M-3 TMP-05A**
 Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ng/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene			not detected	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene			not detected	1000	0.15 ug/L	0.50 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene			not detected	50	0.15 ug/L	0.50 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

J = Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

R.L. = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

M3-TMP-05A

Lab Name: FMETL Contract: _____
Lab Code: 13461 Case No.: MW SAS No.: _____ SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043310
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4819.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. _____ Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report **U.S. Army, Fort Monmouth Environmental Laboratory** **NJDEP Certification #13461**

Data File **VA4821.D**
Operator **ROBERTS**
Date Acquired **3 Nov 2009 10:05 pm**

Sample Name **9043312**
Field ID **M-3 TMP-05B**
Sample Multiplier **1**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	RL	Qualifiers
107028	Acrolein			not detected	5	2.09 ug/L	5.00 ug/L	
107131	Acrylonitrile			not detected	2	1.64 ug/L	5.00 ug/L	
75650	tert-Butyl alcohol			not detected	100	1.89 ug/L	5.00 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	0.18 ug/L	0.50 ug/L	
108203	Di-isopropyl ether			not detected	20000	0.12 ug/L	0.50 ug/L	
75718	Dichlorodifluoromethane			not detected	1000	0.22 ug/L	1.00 ug/L	
74-87-3	Chloromethane			not detected	nle	0.10 ug/L	1.00 ug/L	
75-01-4	Vinyl Chloride			not detected	1	0.22 ug/L	1.00 ug/L	
74-83-9	Bromomethane			not detected	10	0.25 ug/L	1.00 ug/L	
75-00-3	Chloroethane			not detected	nle	0.22 ug/L	1.00 ug/L	
75-69-4	Trichlorofluoromethane			not detected	2000	0.18 ug/L	1.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	1	0.20 ug/L	0.50 ug/L	
67-64-1	Acetone			not detected	6000	0.18 ug/L	0.50 ug/L	
75-15-0	Carbon Disulfide			not detected	700	0.18 ug/L	0.50 ug/L	
75-09-2	Methylene Chloride			not detected	3	0.16 ug/L	0.50 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.20 ug/L	0.50 ug/L	
75-35-3	1,1-Dichloroethane			not detected	50	0.19 ug/L	0.50 ug/L	
108-05-4	Vinyl Acetate			not detected	7000	0.20 ug/L	0.50 ug/L	
78-93-3	2-Butanone			not detected	300	0.16 ug/L	1.00 ug/L	
156-59-2	cis-1,2-Dichloroethene	9.66	13115	0.94 ug/L	70	0.14 ug/L	0.50 ug/L	
67-66-3	Chloroform			not detected	70	0.21 ug/L	0.50 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.17 ug/L	0.50 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.27 ug/L	0.50 ug/L	
71-43-2	Benzene			not detected	1	0.16 ug/L	0.50 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.19 ug/L	0.50 ug/L	
79-01-6	Trichloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.16 ug/L	0.50 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	0.25 ug/L	1.00 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	1	0.16 ug/L	0.50 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	nle	0.26 ug/L	1.00 ug/L	
108-88-3	Toluene	13.37	22984	0.46 ug/L	1000	0.15 ug/L	0.50 ug/L	J
10061-02-6	trans-1,3-Dichloropropene			not detected	1	0.12 ug/L	0.50 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.14 ug/L	0.50 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.18 ug/L	0.50 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.20 ug/L	0.50 ug/L	
126-48-1	Dibromochloromethane			not detected	1	0.14 ug/L	0.50 ug/L	
108-90-7	Chlorobenzene	15.75	10326	0.30 ug/L	50	0.15 ug/L	0.50 ug/L	J
100-41-4	Ethylbenzene			not detected	700	0.16 ug/L	0.50 ug/L	
630-20-6	1,1,1,2-tetrachloroethane			not detected	1	0.15 ug/L	0.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	0.27 ug/L	1.00 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.14 ug/L	0.50 ug/L	
100-42-5	Styrene			not detected	100	0.12 ug/L	0.50 ug/L	
75-25-2	Bromoform			not detected	4	0.14 ug/L	1.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	1	0.12 ug/L	0.50 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.12 ug/L	0.50 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.12 ug/L	0.50 ug/L	

*Results between MDL and RL are estimated values

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9C 07Nov2005

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

J = Estimated concentration, value falls between R.L. and M.D.L.

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

R.L. = Reporting Limit

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

M3-TMP-05B

Lab Name: FMETL Contract: _____
Lab Code: 13461 Case No.: MW SAS No.: _____ SDG No.: 90433
Matrix: (soil/water) WATER Lab Sample ID: 9043312
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VA4821.D
Level: (low/med) LOW Date Received: 11/2/2009
% Moisture: not dec. _____ Date Analyzed: 11/3/2009
GC Column: RTX-VM ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

Number TICs found: 1 (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000496-11-7	Indane	20.42	3	JN

FORM I VOA-TIC

3/90

000038

ATTACHMENT B

Table 7 Summary of Long Term Monitoring Recommendations August 2013 Baseline Groundwater Sampling Report

Table 7
Summary of Long Term Monitoring Recommendations
August 2013 Baseline Groundwater Sampling Report
Fort Monmouth, New Jersey

Site	Historical Exceedances		August 2013 Exceedances ¹		August 2013 Sampling				Recommended Sampling in 2014 ²				Frequency		Comments
	Monitoring Wells (MWs) Exhibiting Exceedances	Analytes	MW's Exhibiting Exceedances	Analytes	Number of MWs sampled	Monitoring wells sampled	Analysis	Sampling methodology	Number of MWs to be sampled	MW's to be sampled	Analysis	Sampling Methodology	Performance Work Statement (PWS)	August 2013 recommendation	
M2	M2MW02 to M2MW13, M2MW21 to M2MW24	Metals, benzene, chlorobenzene, TBA	M2MW03	Benzene, chlorobenzene	16	M2MW02 to M2MW13, M2MW21 to M2MW24	VOCs & TICs-EPA Method 8260C Pesticides-EPA Method 8081B	LFPS	6	M2MW03, M2MW10, M2MW11, M2MW21, M2MW22, M2MW24	VOCs-EPA Method 8260C	PDB	Two rounds	Two additional rounds of sampling - PDB	Metals sampling discontinued due to background sources. Pesticides sampling is not recommended due to no detection in August 2013. Well to be retained for downgradient monitoring of benzene.
M3	M3MW02, M3MW04 to M3MW14, M3MW07A,	Metals, VC	M3MW07	VC	12	M3MW04 to M3MW14, M3MW07A,	VOCs & TICs-EPA Method 8260C Metals-EPA Method 6010C/7470A	LFPS	1	M3MW02	VOCs-EPA Method 8260C Metals-EPA Method 6010C/7470A (M3MW02)	LFPS	Annual	One additional round - LFPS	Metals sampling discontinued due to background sources. M3MW02 not sampled due to low water column and silt. Sample for VOCs and metals in next round.
M4	M4MW07 to M4MW10	Metals	None	N/A	6	M4MW05 to M4MW10	VOCs & TICs-EPA Method 8260C Metals-EPA Method 6010C/7470A	LFPS	0	N/A	N/A	N/A	Two rounds	Discontinued	Metals sampling discontinued due to background sources. No exceedances, discontinue sampling.
M5	M5MW11, M5MW16, M5MW20, M5MW23	PCE, TCE, VC	M5MW11, M5MW16, M5MW20, M5MW23	PCE, TCE, VC	10	M5MW10 to M5MW16, M5MW18 to M5MW20, M5MW23	VOCs & TICs-EPA Method 8260C	PDB	4	M5MW11, M5MW16, M5MW20, M5MW23	VOCs-EPA Method 8260C	PDB	Annual	Annual - PDB	
M8	M8MW11 to M8MW23, RM8MW24, 697MW01	Metals, benzene	M8MW12, M8MW14	Pb, PCE	13	M8MW12 to M8MW23, RM8MW24	VOCs & TICs-EPA Method 8260C Pesticides-EPA Method 8081B Lead-EPA Method 6010C	LFPS	8	M8MW11, M8MW12, M8MW15, M8MW16, M8MW17, M8MW21, M8MW24, 697MW01	Pb-EPA Method 6010C (M8MW11, M8MW17, M8MW21, and 697MW01), VOCs-EPA Method 8260C (M8MW11, M8MW12, M8MW15, and 697MW01) Pesticides-EPA Method 8081B (697MW01)	LFPS	Annual	Annual - LFPS	Metals sampling discontinued due to background sources at the exception of Pb (M8MW11, M8MW17, and M8MW21) and Mn (M8MW14). PCE was the only VOCs exceedance in August 2013. M8MW11 was not part of the Aug 2013 baseline sampling. Due to historical exceedances for Pb, reintroduced in long term monitoring sampling program. 697MW01 not sampled in August 2013. Must locate and sample for VOC, Pb, and pesticides.
M12	M12MW11 to M12MW26	Metals	None	N/A	16	M12MW11 to M12MW26	Lead-EPA Method 6010C	LFPS	0	N/A	N/A	N/A	Two rounds	Discontinued	Metals sampling discontinued due to background sources. No Pb exceedance in August 2013, discontinue sampling.
M14	M14MW19 to M14MW24	Metals	None	N/A	6	M14MW19 to M14MW24	VOCs & TICs-EPA Method 8260C	PDB	0	N/A	N/A	N/A	Annual	Discontinued	Metals sampling discontinued due to background sources. No VOCs exceedance in August 2013, discontinue sampling.
M18	M18MW22, M18MW23, MP18MW24, MP18MW25	Benzene, 1,2-DCA, carbon tetrachloride, metals	M18MW22	1,2-DCA	3	M18MW22, MP18MW24, MP18MW25	VOCs & TICs-EPA Method 8260C	PDB	2	M18MW22 M18MW23	VOCs-EPA Method 8260C	PDB	Annual	Annual - PDB	Metals sampling discontinued due to background sources. M18MW23 not sampled in August 2013. Must locate M18MW23 and sample for VOCs.
M22	CW1MW25 to CW1MW33, CW1MW35 to CW1MW40, CW1MW281, CW1MW282, CW1MW291	Metals, TCE	CW1MW29	TCE	16	CW1MW26 to CW1MW40, CW1MW282, CW1MW291	VOCs & TICs-EPA Method 8260C	PDB	4	CW1MW27, CW1MW31, CW1MW29, CW1MW281	VOCs-EPA Method 8260C	PDB	Quarterly	Quarterly - PDB	Metals sampling discontinued due to background sources. CW1MW281 not sampled in August 2013 due to obstruction in the well. Obstruction removed in January 2014.
M25	CW3AMW01 to CW3AMW04	Metals	None	N/A	4	CW3AMW01 to CW3AMW04	VOCs & TICs-EPA Method 8260C Pesticides-EPA Method 8081B Metals-EPA Method 6010C/7470A	LFPS	0	N/A	N/A	N/A	Not on PWS List	Discontinued	Metals sampling discontinued due to background sources.
M53	616MW01, 699MW01 , 699MW02, 699MW04 to 699MW06, 699MW08, 699MW09, 699MW12, 699MW15, 699MW16, 699RW03, 699RW05, 699RW11	Metals, benzene, PCE, 1,2,4-TMB, 1,3,5-TMB, xylenes,TBA, TCE, TICs	699MW06, 699MW16, 699RW03, 699RW05, 699RW11	Benzene, PCE, 1,2,4-TMB, 1,3,5-TMB, xylenes	14	616MW01, 699MW01 , 699MW02, 699MW04 to 699MW06, 699MW08, 699MW09, 699MW12, 699MW15, 699MW16, 699RW03, 699RW05, 699RW11	VOCs & TICs-EPA Method 8260C	LFPS	8	699MW01, 699MW04, 699MW06, 699MW09, 699MW16, 699RW03, 699RW05, 699RW11	VOCs-EPA Method 8260C	PDB	Quarterly	Quarterly - PDB	Metals sampling discontinued due to background sources. List of MWs based on historical and August 2013 analytical results.
M54	296MW01 to 296MW04, 296MW06 to 296MW08	Metals, benzene	296MW06	Benzene	7	296MW01 to 296MW04, 296MW06 to 296MW08	VOCs & TICs-EPA Method 8260C Lead-EPA Method 6010C/7470A	LFPS	2	296MW04, 296MW06	VOC-EPA Method 8260C (296MW06)	PDB	Annual	Annual - PDB	Metals sampling discontinued due to background sources. 296MW04 used as delineation point for 296MW06
M55	290MW01	As, Pb	None	N/A	1	290MW01	Lead-EPA Method 6010C/7470A	LFPS	0	N/A	N/A	N/A	Annual	Discontinued	Metals sampling discontinued due to background sources.
M56	80MW01 to 80MW05, 166MW01	Metals, chlordane	None	N/A	6	80MW01 to 80MW05, 166MW01	Lead-EPA Method 6010C/7470A	LFPS	2	80MW05, 80MW02	Pb-EPA Method 6010C/7470A (80MW05), Pesticides-EPA Method 8081B (80MW02)	LFPS	Annual	one additional round - LFPS	Continue Pb sampling at 80MW05. Other metals considered background concentrations. 80MW02 will be analyzed for pesticides. Monitoring wells will be sampled for one additional round.
M57	108MW01 to 108MW04	Metals	108MW01, 108MW02, 108MW03	Metals	4	108MW01 to 108MW04	VOCs & TICs-EPA Method 8260C Pesticides-EPA Method 8081B Metals-EPA Method 6010C/7470A	LFPS	1	108MW04	Pb-EPA Method 6010C/7470A	LFPS	Not on PWS List	two additional rounds - LFPS	Pb will be analyzed at 108MW04 for two more rounds.
M58	2567MW01, 2567MW03	TBA	None	N/A	7	2567MW01 to 2567MW07	VOCs & TICs-EPA Method 8260C	PDB	2	2567MW01, 2567MW03	VOC-EPA Method 8260C - TBA Only	LFPS	Annual	Two additional rounds of sampling - LFPS	Wells will be analyzed for TBA only for two rounds to confirm presence or lack of contaminant.
M59	1122MW01 to 1122MW06 1122MW07 - not available	Metals	None	N/A	7	1122MW01 to 1122MW07	VOCs & TICs-EPA Method 8260C	PDB	1	1122MW07	VOC-EPA Method 8260C	PDB	Quarterly	One additional round	One additional round to confirm results.
M61	283MW01 to 283MW04	Metals, benzene, TICs	None	N/A	4	283MW01 to 283MW04	VOCs & TICs-EPA Method 8260C Lead-EPA Method 6010C/7470A	LFPS	1	283MW02	VOCs-EPA Method 8260C	PDB	Annual	one additional round - PDB	Continue sampling at 283MW03 because of historical benzene exceedances.
M64	812MW01, 812MW02, 812MW04 to 812MW08, 812MW14	Metals, benzene, VC	None	N/A	8	812MW01, 812MW02, 812MW04 to 812MW08, 812MW14	VOCs & TICs-EPA Method 8260C Lead-EPA Method 6010C/7470A	LFPS	1	812MW04	VOC-EPA Method 8260C	PDB	Annual	Annual - PDB	Metals analysis discontinued due to background. VOCs analyzed an annually in 812MW04.
M66	886MW01 , 886MW03, 886MW05, 886RW01 to 886RW08	Metals, bis(2-ethylhexyl)phthalate	None	N/A	13	886MW01 to 886MW05, 886RW01 to 886RW08	VOCs & TICs-EPA Method 8260C SVOCs-EPA Method 8270D Lead-EPA Method 6010C/7470A	LFPS	0	N/A	N/A	N/A	Quarterly	Discontinued	Bis(2-ethylhexyl)phthalate result is anomalous. Metals sampling discontinued due to background sources.
M68	N/A	N/A	565MW01, 565MW01D	PCE, TCE, cis-1,2-DCE, VC	2	565MW01, 565MW01D	VOCs & TICs-EPA Method 8260C	PDB	2	565MW01, 565MW01D	VOC-EPA Method 8260C	PDB	Quarterly	Quarterly - PDB	No historical data available, continue sampling.

Notes:
MWs - monitoring wells
N/A - not applicable
VOCs - volatile organics compounds
SVOCs - semivolatiles organic compounds
TMB - trimethylbenzene
VC - vinyl chloride
TCE - tetrachloroethene
PCE - tetrachloroethene
1,1-DCA - 1,1-dichloroethane
1,2-DCA - 1,2-dichloroethane
1.1.1-TCA - 1.1.1-trichloroethane
1,2,4-TMB - 1,2,4-trimethylbenzene
1,3,5-TMB - 1,3,5-trimethylbenzene
TICs - tentatively identified compounds
TBA - tert-butyl-alcohol
LFPS - low flow purging and sampling
PDB - passive diffusion bags

1. Exceedance is defined as a parameter that was greater than NJDEP GWQS.
2. The recommendations are for sampling in 2014 to allow for the continued monitoring of groundwater conditions. Remedial investigations are ongoing at many of the sites and these recommendations may be modified based on analysis of new information and evaluation of risk.