

APPENDIX J: REPORT FOR JUNE 2007 CWM SAMPLING



**US Army Corps of
Engineers**

**QUALITY CONTROL SUMMARY REPORT
JUNE 2007 GROUNDWATER MONITORING**

**FORMER NEBRASKA ORNDANCE PLANT
MEAD, NE**

Prepared By:

U.S. Army Corps of Engineers
Kansas City District
700 Federal Building
601 E. 12th Street
Kansas City, Missouri 64106

July 2007

Quality Control Report for Former Nebraska Ordnance Plant CWM Sampling

Results

Sampling for mustard agent indicator parameters was conducted at the Former Nebraska Ordnance Plant on June 20 and 21, 2007. This report concerns the groundwater samples collected for Thiodiglycol, 1,4-dithiane, and 1,4-thioxane analysis and analyzed by ECBC Environmental Monitoring Laboratory. Thirteen groundwater samples and associated quality control were analyzed on 6/25/07 following procedures specified in *CWM Groundwater Sampling Workplan and QAPP* dated June 2007.

This effort consisted of sampling 12 onsite wells following procedures identified in the *Draft-Final Work Plans, Field Sampling Plans, and Quality Assurance Plans for Monitoring Well Sampling, Water Supply Well Sampling, Operations and Maintenance Sampling* dated June 2006. Figure 1 shows the locations of the wells sampled.

Analytical data is contained in Appendix A and sampling forms are contained in Appendix B. Data is summarized in Table 1.

All of the collected groundwater samples were non-detect for mustard agent indicator parameters.

Sampling

Twelve landfill wells were sampled following the *CWM Groundwater Sampling Workplan and QAPP* dated June 2007. These samples were collected following low-flow methodology.

Duplicates and Matrix Spike Samples				
SDG	Sample	Duplicate	QA Split	Matrix Spike Sample
07062531	NLF-MW02-S-062007	NLF-MW202-S-062007		NLF-MW05-I-062007
07062501	NLF-MW02-S-062007	NLF-MW202-S-062007		NLF-MW05-I-062007

No QA samples were collected.

Data Quality Evaluation

All sample coolers arrived with appropriate custody seals.
All coolers were received within the temperature range.

All samples were analyzed within holding times. All data received is judged to be acceptable and usable.

Method IOP MT-8 (1,4-Dithiane and 1,4-Thioxane)

Sample Preservation

All samples were properly preserved. All coolers arrived at the laboratory under 4°C.

Method Blanks

The method blank for MT-8 was free of contamination.

Surrogates

All surrogates for all samples analyzed were within quality control limits.

Laboratory Control Spike

The Laboratory Control Spikes were within quality control limits.

Matrix Spike/Matrix Spike Duplicate

The MS/MSDs were within quality control limits.

Method IOP MT-26 (Thiodiglycol)

Sample Preservation

All samples were properly preserved. All coolers arrived at the laboratory under 4°C.

Method Blanks

The method blank for MT-8 was free of contamination.

Surrogates

All surrogates for all samples analyzed were within quality control limits.

Laboratory Control Spike

The Laboratory Control Spikes were within quality control limits.

Matrix Spike/Matrix Spike Duplicate

The MS/MSDs were within quality control limits.

TABLES

**Fomer Nebraska Ordnance Plant
Data Tables
June 2007**

Analyte Name	NLF-MW02-S-062007				NLF-MW202-S-062007			
	Field Duplicates							
	Results	Units	PQL	Qualifiers	Results	Units	PQL	Qualifiers
Thiodiglycol		mg/L	5	U		mg/L	5	U
1,4-Dithiane		ug/L	100	U		ug/L	100	U
1,4-Thioxzne		ug/L	100	U		ug/L	100	U

**Fomer Nebraska Ordnance Plant
Data Tables
June 2007**

Analyte Name	NLF-MW02-I-062007				NLF-MW03-S-062007			
	Results	Units	PQL	Qualifiers	Results	Units	PQL	Qualifiers
Thiodiglycol		mg/L	5	U		mg/L	5	U
1,4-Dithiane		ug/L	100	U		ug/L	100	U
1,4-Thioxzne		ug/L	100	U		ug/L	100	U

**Fomer Nebraska Ordnance Plant
Data Tables
June 2007**

Analyte Name	NLF-MW03-I-062007				NLF-MW04-S-062007			
	Results	Units	PQL	Qualifiers	Results	Units	PQL	Qualifiers
Thiodiglycol		mg/L	5	U		mg/L	5	U
1,4-Dithiane		ug/L	100	U		ug/L	100	U
1,4-Thioxzne		ug/L	100	U		ug/L	100	U

**Fomer Nebraska Ordnance Plant
Data Tables
June 2007**

Analyte Name	NLF-MW04-I-062007				NLF-MW05-S-062007			
	Results	Units	PQL	Qualifiers	Results	Units	PQL	Qualifiers
Thiodiglycol		mg/L	5	U		mg/L	5	U
1,4-Dithiane		ug/L	100	U		ug/L	100	U
1,4-Thioxzne		ug/L	100	U		ug/L	100	U

**Fomer Nebraska Ordnance Plant
Data Tables
June 2007**

Analyte Name	NLF-MW05-I-062007				NLF-MW06-S-062007			
	Results	Units	PQL	Qualifiers	Results	Units	PQL	Qualifiers
Thiodiglycol		mg/L	5	U		mg/L	5	U
1,4-Dithiane		ug/L	100	U		ug/L	100	U
1,4-Thioxzne		ug/L	100	U		ug/L	100	U

**Fomer Nebraska Ordnance Plant
Data Tables
June 2007**

Analyte Name	NLF-MW06-I-062007				NLF-MW07-S-062007			
	Results	Units	PQL	Qualifiers	Results	Units	PQL	Qualifiers
Thiodiglycol		mg/L	5	U		mg/L	5	U
1,4-Dithiane		ug/L	100	U		ug/L	100	U
1,4-Thioxzne		ug/L	100	U		ug/L	100	U

**Fomer Nebraska Ordnance Plant
Data Tables
June 2007**

Analyte Name	NLF-MW07-I-062007			
	Results	Units	PQL	Qualifiers
Thiodiglycol		mg/L	5	U
1,4-Dithiane		ug/L	100	U
1,4-Thioxzne		ug/L	100	U

FIGURES

APPENDIX A-ANALYTICAL DATA PACKAGE

Baker, Kathy T NWK

From: Schwarz, John L Mr ECBC [john.l.schwarz@us.army.mil]
Sent: Tuesday, July 03, 2007 5:15 AM
To: Ditillo, John; Rosso, Thomas E ECBC; Baker, Kathy T NWK; 'ddander@ecc.net'
Cc: Dusick, Brandon Edward Mr ECBC; Meuser, Jill M CONTRACTOR - SCITECH SERVICES INC.; Norman, Steven D Mr ECBC; Privett, Arlita I ECBC; Schwarz, John L Mr ECBC; Wassum, Melissa N CONTRACTOR - STEM INTERNATIONAL; Smith, Wendy L ECBC
Subject: FINAL REPORT: Mead NOP Batch 07062501 07062531

QA/QC review of the subject data report is complete. It does not require revision and can be considered final as delivered.

-----Original Message-----

From: Schwarz, John L Mr ECBC
Sent: Thursday, June 28, 2007 1:25 PM
To: Ditillo, John T ECBC; Rosso, Thomas E ECBC; 'Kathy.T.Baker@nwk02.usace.army.mil'; 'ddander@ecc.net'
Cc: Dusick, Brandon Edward Mr ECBC; Meuser, Jill M CONTRACTOR - SCITECH SERVICES INC.; Norman, Steven D Mr ECBC; Privett, Arlita I ECBC; Schwarz, John L Mr ECBC; Wassum, Melissa N CONTRACTOR - STEM INTERNATIONAL; Smith, Wendy L ECBC

Subject: PRELIMINARY REPORT: Mead NOP Batch 07062501 07062531 (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Preliminary report for the following samples, pending final QA/QC review.
EML070863 thru EML070875

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE



ECBC Environmental
Monitoring Laboratory
Analytical Narrative

Client/Project: USACE/Mead NOP	Date Received: 6/22/2007
Extraction Analyst: Laura Elliott, Nam-Phuong Nguyen	Date Extracted: 6/25/2007
Analyst: Laura Elliott, Nam-Phuong Nguyen	Batch No(s): 07062501, 07062531
Reviewer: John Schwarz	ECBC Sample No(s): EML070863 -- EML070875

Sample Summary

Thirteen water samples and associated quality control were analyzed on 6/25/2007 following the procedures specified in IOP MT-8, Revision 4 for 1,4-Dithiane; 1,4-Thioxane, and IOP-MT-26, Revision 0 for Thiodiglycol.

All of the water sample(s) were free of the analytes to the PQL.

IOP MT-8 Sample & Method Performance

Tune: All tuning criteria were met and the reported samples were analyzed within the twelve-hour tune limit.

Calibration: All initial and continuing calibration criteria were met.

Surrogates: All surrogate criteria were met for the reported sample(s).

LCS/LCSDUP(s): All quality control criteria were met for the LCS/LCSD.

Method Blank(s): The method blank was ND for the analyte(s) of interest to the laboratory PQL.

MS/MSD(s): All quality control criteria were met for the MS/MSD.

IOP MT-26 Sample & Method Performance

Calibration: All initial and continuing calibration criteria were met for the reported samples.

LCS/LCSDUP(s): All quality control criteria were met for the reported LCS/LCSDs.

Method Blank(s): The method blank was ND for all analytes of interest to the laboratory MDL.

MS/MSD(s): All quality control criteria were met for the reported MS/MSDs.



Environmental Monitoring Laboratory

CBARR Analysis Request Form

MB-FORM 43 Revision 3 August 2004

ANALYTE LIST*: GB, GD, VX, HD, L, GA, GF, HN-1, HN-3, DIMP, DMMP, MPA, EMPA, IMPA, PMPA, 1,4-Dithiane, 1,4-Thioxane, Thiodiglycol

* Additional analytes available upon request

GOV'T POC: (responsible for project) Steve Norman
GOV'T ORG: BCBC

CONTACT POC: (responsible for samples/results) Kathy Baker
ORGANIZATION: USACR-KCD

ADDRESS: 700 Federal Bldg, 601 East 12th Street, Kansas City, MO 64106

Phone #: (816)389--3906 Fax #: (816)426--5949

EMAIL: Kathy.T.Baker@nwk02.usace.army.mil PAGE 2 OF 2

PROJECT NAME: Mead NOP

SAMPLE LOCATION: University Landfill

SAMPLER(S)/Org: Ralph Vest/ASW Tim Thares/ECC

LIST ANALYTES REQUESTED FOR ANALYSIS

COLLECTION DATE	SAMPLE NAME	MATRIX	LIST ANALYTES REQUESTED FOR ANALYSIS				T:hr	COMMENTS
			1,4-dithiane	1,4-Thioxane	Thiodiglycol			
6-20-07	NLF-MW07-I-062007	W	X	X	X		1730	
6-21-07	NLF-MW04-S-062007	W	X	X	X		0910	
6-21-07	NLF-MW04-T-062007	W	X	X	X		0950	

Observed Suspect Contamination (Check box to indicate a high probability of chemical warfare agent presence, e.g. visible liquid, leaking munition, etc.)

DISCLAIMER: This form is not to supercede a formal chain of custody (COC) document. Fill out this form, as completely as possible, and include a copy with each shipment of extraction samples. List all analytes requested for monitoring. Fill out POC section, so results can be sent as soon as received.
NOTE: You do not need to fill out this form, if your COC document includes all of the information requested on this form.

CBARR

Analysis Request Form

MB-FORM 43 Revision 3 August 2004

ANALYTE LIST*: GB, GD, VX, HD, L, GA, GF, HN-1, HN-3, DIMP, DMMP, MPA, EMPA, IMPA, PMPA, 1,4-Dithiane, 1,4-Thioxane, Thiodiglycol
 * Additional analytes available upon request

GOVT POC: (responsible for project) Steve Norman
 GOVT ORG: ECBC

CONTACT POC:(responsible for samples/results) Kathy Baker
 ORGANIZATION: USACE-KCD

ADDRESS: 700 Federal Bldg, 601 East 12th Street, Kansas City, MO 64106
 Phone #:(816)389--3906 Fax #:(816)426--5949
 EMAIL: Kathy.T.Baker@nwk02.usace.army.mil

PAGE 1 OF 2

PROJECT NAME: Mead NOP
 SAMPLE LOCATION: University Landfill
 SAMPLER(S)/Org: Ralph Vest/ASW Tim Thares/ECC

LIST ANALYTES REQUESTED FOR ANALYSIS

COLLECTION DATE	SAMPLE NAME	MATRIX	LIST ANALYTES REQUESTED FOR ANALYSIS			Time	COMMENTS
			1,4-dithiane	1,4-Thioxane	Thiodiglycol		
6-20-07	NLF-MW02-S-062007	W	X	X	X	0910	
6-20-07	NLF-MW02-I-062007	W	X	X	X	1010	
6-20-07	NLF-MW202-I-062007	W	X	X	X	1010	
6-20-07	NLF-MW03-S-062007	W	X	X	X	1115	
6-20-07	NLF-MW03-I-062007	W	X	X	X	1155	
6-20-07	NLF-MW05-S-062007	W	X	X	X	1300	
6-20-07	NLF-MW05-T-062007	W	X	X	X	1340	
6-20-07	NLF-MW05-I-062007 MS	W	X	X	X	1346	
6-20-07	NLF-MW05-I-062007 MSD	W	X	X	X	1340	
6-20-07	NLF-MW06-S-062007	W	X	X	X	1525	
6-20-07	NLF-MW06-I-062007	W	X	X	X	1605	
6-20-07	NLF-MW07-S-062007	W	X	X	X	1650	

Observed Suspect Contamination (Check box to indicate a high probability of chemical warfare agent presence, e.g. visible liquid, leaking munition, etc.)

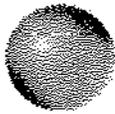
DISCLAIMER: This form is not to supercede a formal chain of custody (COC) document. Fill out this form, as completely as possible, and include a copy with each shipment of extraction samples. List all analytes requested for monitoring. Fill out POC section, so results can be sent as soon as received.
 NOTE: You do not need to fill out this form, if your COC document includes all of the information requested on this form.

Fedex

CHAIN OF CUSTODY RECORD

PROJ. NO.		PROJECT NAME				NO. OF CONTAINERS	REMARKS				
SAMPLERS: (Signature)											
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION						
	6/20/07	0910	X		NLF-MW02-S-062007	1	X	X	X		
	6/20/07	1010	X		NLF-MW02-I-062007	1	X	X	X		
	6/20/07	1010	X		NLF-MW202-I-062007	1	X	X	X		
	6/20/07	1115	X		NLF-MW03-S-062007	1	X	X	X		
	6/20/07	1155	X		NLF-MW03-I-062007	1	X	X	X		
	6/20/07	1300	X		NLF-MW05-S-062007	1	X	X	X		
	6/20/07	1340	X		NLF-MW05-I-062007	1	X	X	X		
	6/20/07	1346	X		NLF-MW05-I-062007MS	1	X	X	X		
	6/20/07	1340	X		NLF-MW05-I-062007MSD	1	X	X	X		
	6/20/07	1525	X		NLF-MW06-S-062007	1	X	X	X		
	6/20/07	1605	X		NLF-MW06-I-062007	1	X	X	X		
	6/20/07	1650	X		NLF-MW07-S-062007	1	X	X	X		
	6/20/07	1730	X		NLF-MW07-I-062007	1	X	X	X		
	6/21/07	0910	X		NLF-MW04-S-062007	1	X	X	X		
	6/21/07	0950	X		NLF-MW04-I-062007	1	X	X	X		
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time		Received by: (Signature)	
[Signature]		6/21/07 1700		Fedex 8598 2890 3436							
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time		Received by: (Signature)	
Relinquished by: (Signature)		Date / Time		Received for Laboratory by: (Signature)		Date / Time		Remarks			

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files



Analytical Results

PART 1

MBFORM-41 Revision 11 July 2005

PROJECT:	Mead NOP		
Reporting POC:	Kathy Baker of USACE	USACE: Kathy Baker	
Phone/Fax:	W: (816) 389-3906	F: (816) 426-5949	Kathy.T.Baker@nwk02.usace.army.mil

Client Sample ID NLF-MW02-S-062007

Sample Date 6/20/2007 Matrix Water

Date Rec'd 6/22/2007 Remarks

Lab ID: EML070863 Batch #: 07062531 Method MT-26

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	< 5.0	mg/L	5.0	6/25/2007	6/25/2007	

Lab ID: EML070863 Batch #: 07062501 Method MT-8

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	< 100	ug/L	100	6/25/2007	6/25/2007	
1,4-Thioxane	< 100	ug/L	100			
(Surrogate) BFB	104	%R				

Client Sample ID NLF-MW02-I-062007

Sample Date 6/20/2007 Matrix Water

Date Rec'd 6/22/2007 Remarks

Lab ID: EML070864 Batch #: 07062531 Method MT-26

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	< 5.0	mg/L	5.0	6/25/2007	6/25/2007	

Lab ID: EML070864 Batch #: 07062501 Method MT-8

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	< 100	ug/L	100	6/25/2007	6/25/2007	
1,4-Thioxane	< 100	ug/L	100			
(Surrogate) BFB	109	%R				

ND = Not Detected at or above the Practical Quantitation Limit (PQL). D = Sample was diluted. E = Estimated value; result above upper calibration level. J = Detected above the method detection limit but below the PQL. Result is an estimated value.

Client Sample ID NLF-MW202-S-062007

Sample Date 6/20/2007 Matrix Water

Date Rec'd 6/22/2007 Remarks

Lab ID: EML070865 Batch #: 07062531 Method MT-26

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	< 5.0	mg/L	5.0	6/25/2007	6/25/2007	

Lab ID: EML070865 Batch #: 07062501 Method MT-8

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	< 100	ug/L	100	6/25/2007	6/25/2007	
1,4-Thioxane	< 100	ug/L	100			
(Surrogate) BFB	104	%R				

Client Sample ID NLF-MW03-S-062007

Sample Date 6/20/2007 Matrix Water

Date Rec'd 6/22/2007 Remarks

Lab ID: EML070866 Batch #: 07062531 Method MT-26

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	< 5.0	mg/L	5.0	6/25/2007	6/25/2007	

Lab ID: EML070866 Batch #: 07062501 Method MT-8

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	< 100	ug/L	100	6/25/2007	6/25/2007	
1,4-Thioxane	< 100	ug/L	100			
(Surrogate) BFB	111	%R				

Client Sample ID NLF-MW03-I-062007

Sample Date 6/20/2007 Matrix Water

Date Rec'd 6/22/2007 Remarks

Lab ID: EML070867 Batch #: 07062531 Method MT-26

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	< 5.0	mg/L	5.0	6/25/2007	6/25/2007	

Lab ID: EML070867 Batch #: 07062501 Method MT-8

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	< 100	ug/L	100	6/25/2007	6/25/2007	
1,4-Thioxane	< 100	ug/L	100			
(Surrogate) BFB	99	%R				

ND = Not Detected at or above the Practical Quantitation Limit (PQL). D = Sample was diluted. E = Estimated value; result above upper calibration level. J = Detected above the method detection limit but below the PQL. Result is an estimated value.

Thursday, June 28, 2007

Page 2 of 5

Client Sample ID NLF-MW05-S-062007

Sample Date 6/20/2007 Matrix Water

Date Rec'd 6/22/2007 Remarks

Lab ID: EML070868 Batch #: 07062531 Method MT-26

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	< 5.0	mg/L	5.0	6/25/2007	6/25/2007	

Lab ID: EML070868 Batch #: 07062501 Method MT-8

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	< 100	ug/L	100	6/25/2007	6/25/2007	
1,4-Thioxane	< 100	ug/L	100			
(Surrogate) BFB	112	%R				

Client Sample ID NLF-MW05-1-062007

Sample Date 6/20/2007 Matrix Water

Date Rec'd 6/22/2007 Remarks Use for MS and MSD

Lab ID: EML070869 Batch #: 07062531 Method MT-26

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	< 5.0	mg/L	5.0	6/25/2007	6/25/2007	

Lab ID: EML070869 Batch #: 07062501 Method MT-8

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	< 100	ug/L	100	6/25/2007	6/25/2007	
1,4-Thioxane	< 100	ug/L	100			
(Surrogate) BFB	118	%R				

Client Sample ID NLF-MW06-S-062007

Sample Date 6/20/2007 Matrix Water

Date Rec'd 6/22/2007 Remarks

Lab ID: EML070870 Batch #: 07062531 Method MT-26

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	< 5.0	mg/L	5.0	6/25/2007	6/25/2007	

Lab ID: EML070870 Batch #: 07062501 Method MT-8

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	< 100	ug/L	100	6/25/2007	6/25/2007	
1,4-Thioxane	< 100	ug/L	100			
(Surrogate) BFB	108	%R				

ND = Not Detected at or above the Practical Quantitation Limit (PQL). D = Sample was diluted. E = Estimated value; result above upper calibration level. J = Detected above the method detection limit but below the PQL. Result is an estimated value.

Client Sample ID NLF-MW06-I-062007

Sample Date 6/20/2007 Matrix Water

Date Rec'd 6/22/2007 Remarks

Lab ID: EML070871 Batch #: 07062531 Method MT-26

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	< 5.0	mg/L	5.0	6/25/2007	6/25/2007	

Lab ID: EML070871 Batch #: 07062501 Method MT-8

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	< 100	ug/L	100	6/25/2007	6/25/2007	
1,4-Thioxane	< 100	ug/L	100			
(Surrogate) BFB	110	%R				

Client Sample ID NLF-MW07-S-062007

Sample Date 6/20/2007 Matrix Water

Date Rec'd 6/22/2007 Remarks

Lab ID: EML070872 Batch #: 07062531 Method MT-26

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	< 5.0	mg/L	5.0	6/25/2007	6/25/2007	

Lab ID: EML070872 Batch #: 07062501 Method MT-8

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	< 100	ug/L	100	6/25/2007	6/25/2007	
1,4-Thioxane	< 100	ug/L	100			
(Surrogate) BFB	112	%R				

Client Sample ID NLF-MW07-I-062007

Sample Date 6/20/2007 Matrix Water

Date Rec'd 6/22/2007 Remarks

Lab ID: EML070873 Batch #: 07062531 Method MT-26

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	< 5.0	mg/L	5.0	6/25/2007	6/25/2007	

Lab ID: EML070873 Batch #: 07062501 Method MT-8

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	< 100	ug/L	100	6/25/2007	6/25/2007	
1,4-Thioxane	< 100	ug/L	100			
(Surrogate) BFB	103	%R				

ND = Not Detected at or above the Practical Quantitation Limit (PQL). D = Sample was diluted. E = Estimated value; result above upper calibration level. J = Detected above the method detection limit but below the PQL. Result is an estimated value.

Client Sample ID NLF-MW04-S-062007

Sample Date 6/21/2007 Matrix Water

Date Rec'd 6/22/2007 Remarks

Lab ID: EML070874 Batch #: 07062531 Method MT-26

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	< 5.0	mg/L	5.0	6/25/2007	6/25/2007	

Lab ID: EML070874 Batch #: 07062501 Method MT-8

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	< 100	ug/L	100	6/25/2007	6/25/2007	
1,4-Thioxane	< 100	ug/L	100			
(Surrogate) BFB	106	%R				

Client Sample ID NLF-MW04-I-062007

Sample Date 6/21/2007 Matrix Water

Date Rec'd 6/22/2007 Remarks

Lab ID: EML070875 Batch #: 07062531 Method MT-26

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	< 5.0	mg/L	5.0	6/25/2007	6/25/2007	

Lab ID: EML070875 Batch #: 07062501 Method MT-8

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	< 100	ug/L	100	6/25/2007	6/25/2007	
1,4-Thioxane	< 100	ug/L	100			
(Surrogate) BFB	104	%R				

ND = Not Detected at or above the Practical Quantitation Limit (PQL). D = Sample was diluted. E = Estimated value; result above upper calibration level. J = Detected above the method detection limit but below the PQL. Result is an estimated value.



Analytical QC Results

PART 2

MBFORM-41 Revision 11 July 2005

PROJECT:	Mead NOP		
Reporting POC:	Kathy Baker of USACE	USACE: Kathy Baker	
Phone/Fax:	W: (816) 389-3906	F: (816) 426-5949	Kathy.T.Baker@nwk02.usacc.army.mil

Client Sample ID NLF-MW05-1-062007
Sample Date 6/20/2007 **Matrix** Water
Date Rec'd 6/22/2007 **Remarks** Use for MS and MSD
Lab ID EML070869

Matrix Spike

		Batch # 07062501		Method MT-8		
Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	98	%R		6/25/2007	6/25/2007	
1,4-Thioxane	96	%R				
(Surrogate) BFB	116	%R				

Matrix Spike Duplicate

		Batch # 07062501		Method MT-8		
Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	111	%R		6/25/2007	6/25/2007	
1,4-Thioxane	109	%R				
(Surrogate) BFB	119	%R				

Matrix Spike

		Batch # 07062531		Method MT-26		
Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	121	%R		6/25/2007	6/25/2007	

Matrix Spike Duplicate

		Batch # 07062531		Method MT-26		
Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	122	%R		6/25/2007	6/25/2007	

MS/MSD and LCS/LCSD results are in % recovery. ND = Not Detected at or above the Practical Quantitation Limit (PQL). D = Sample was diluted. E = Estimated value; result above upper calibration level. J = Detected above the method detection limit but below the PQL. Result is an estimated value.

Client Sample ID 07062531-LCS
Sample Date 6/25/2007 Matrix Water
Date Rec'd 6/25/2007 Remarks
Lab ID EML070882

Lab Control Spike

Batch # 07062531 Method MT-26

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	117	%R		6/25/2007	6/25/2007	

Client Sample ID 07062531-LCSD
Sample Date 6/25/2007 Matrix Water
Date Rec'd 6/25/2007 Remarks
Lab ID EML070883

Lab Control Spike Duplicate

Batch # 07062531 Method MT-26

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	119	%R		6/25/2007	6/25/2007	

Client Sample ID 07062531-MB
Sample Date 6/25/2007 Matrix Water
Date Rec'd 6/25/2007 Remarks
Lab ID EML070884

Method Blank

Batch # 07062531 Method MT-26

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
Thiodiglycol	< 5.0	mg/L	5.0	6/25/2007	6/25/2007	

Client Sample ID 07062501-LCS
Sample Date 6/25/2007 Matrix Water
Date Rec'd 6/25/2007 Remarks
Lab ID EML070885

Lab Control Spike

Batch # 07062501 Method MT-8

Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	101	%R		6/25/2007	6/25/2007	
1,4-Thioxane	99	%R				
(Surrogate) BFB	117	%R				

MS/MSD and LCS/LCSD results are in % recovery. ND = Not Detected at or above the Practical Quantitation Limit (PQL). D = Sample was diluted. E = Estimated value; result above upper calibration level. J = Detected above the method detection limit but below the PQL. Result is an estimated value.

Client Sample ID 07062501-LCSD
Sample Date 6/25/2007 **Matrix** Water
Date Rec'd 6/25/2007 **Remarks**
Lab ID EML070886

Lab Control Spike Duplicate

		Batch # 07062501		Method MT-8		
Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	100	%R		6/25/2007	6/25/2007	
1,4-Thioxane	97	%R				
(Surrogate) BFB	107	%R				

Client Sample ID 07062501-MB
Sample Date 6/25/2007 **Matrix** Water
Date Rec'd 6/25/2007 **Remarks**
Lab ID EML070887

Method Blank

		Batch # 07062501		Method MT-8		
Analyte	Result	Units	PQL	Extraction	Analysis	Remarks
1,4-Dithiane	< 100	ug/L	100	6/25/2007	6/25/2007	
1,4-Thioxane	< 100	ug/L	100			
(Surrogate) BFB	102	%R				

MS/MSD and LCS/LCSD results are in % recovery. ND = Not Detected at or above the Practical Quantitation Limit (PQL). D = Sample was diluted. E = Estimated value; result above upper calibration level. J = Detected above the method detection limit but below the PQL. Result is an estimated value.

APPENDIX B-SAMPLING FORMS

ENVIRONMENTAL CHEMICAL CORPORATION

GROUNDWATER QUALITY FIELD PARAMETERS

NLF June 2007 Sampling Event

in accordance with ECC SOP E-1205

Date 6-21-07 Weather Sunny Windy 82° ECC Project No. Mead COP NLF Well ID NLF-MW04-I
 Client/Site UN/ Mead COP Wellhead/water surface PID Reading _____ ppm Other conditions _____

SAMPLING METHOD Low Flow Purge/Sample No. of casing volumes purged _____ Lift method: bailer _____ bladder pump
 FILTERED Y N other extraction equipment, if any (describe) QED Pro Bladder Pump dedicated? Y N
 If Yes, filter media _____ Micron size _____
Purge water contained
2.8 gals

WATER QUALITY TEST RESULTS

TIME 24 hr format	Flowrate, volume _____ per minute	Cumulative Production, gallons	Depth to water, ft	pH	TEMP. °C.	Conductivity, Mmhos/cm (TDS)	Turbidity, NTUS (TSS) Not required for Extraction well	REDOX/Eh Potential, mV Not required for Extraction well	Diss.Oxy. mg/L Not required for Extraction well
0930	400ml		39.29	6.48	15.73	407	28.2	134.5	3.80
0935	400ml		39.48	6.44	15.15	401	26.1	120.9	1.40
0940	400ml		39.60	6.45	14.90	402	10.6	110.7	0.89
0945	400ml		39.65	6.44	14.88	400	15.4	105.1	0.78
0950	400ml		39.65	6.42	14.74	398	14.2	97.4	0.61
Post-sampling	400ml		39.65	6.42	14.74	398	14.2	97.4	0.61
Instrument	Identification:	<u>YSI 556 MP5 Flow Cell</u>							
Calibration	Date:	<u>6-21-07</u>							

Data record continuation on page 2? Y N

Other Field Measurements NLF-MW04-I-062007

Parameter(s)	Test Method(s)	Result(s)
Fluid collected for laboratory analysis: # & type of containers _____	Custody Form completed for these samples? Y N	
Analytes/parameters requested: _____	Holding Time in Field _____	
Receiving Laboratory: _____	Shipping Method _____	Date Shipped _____

Recorded by [Signature] Date 6-21-07 Reviewed by _____ Date _____

ENVIRONMENTAL CHEMICAL CORPORATION

GROUNDWATER QUALITY FIELD PARAMETERS

NLF June 2007 Sampling Event 1

in accordance with ECC SOP E-1205

Date 6-21-07 Weather Sunny Windy 78° ECC Project No. Mead NLF Well ID NLF-MW-04-S
 Client/Site UN / Mead NLF NLF Wellhead/water surface PID Reading _____ ppm Other conditions _____

SAMPLING METHOD Low Flow Purge/Sample No. of casing volumes purged _____ Lift method: bailer _____ bladder pump
 FILTERED Y N other extraction equipment, if any (describe) QED PFO Bladder Pump dedicated? Y N
 If Yes, filter media _____ Micron size _____
Purge Water Contained.
2.3 gallons

WATER QUALITY TEST RESULTS

TIME 24 hr format	Flowrate, volume _____ per minute	Cumulative Production, gallons	Depth to water, ft	pH	TEMP. °C.	Conductivity, Mmhos/cm (TDS)	Turbidity, NTUS (TSS) Not required for Extraction well	REDOX/Eh Potential, mV Not required for Extraction well	Diss.Oxy. mg/L Not required for Extraction well
0850	350ml		40.58	6.38	15.43	.421	16.5	148.7	4.23
0855	350ml		40.65	6.49	15.09	.421	13.8	143.0	2.01
0900	350ml		40.68	6.50	14.55	.418	8.50	130.4	1.46
0905	350ml		40.68	6.50	14.50	.418	6.07	124.5	1.36
0910	350ml		40.68	6.51	14.38	.418	4.80	115.8	1.29
Post-sampling	350ml		40.68	6.51	14.38	.418	4.80	115.8	1.29
Instrument	Identification:	<u>YSI 556 mps Flow P/N</u>							
Calibration	Date:	<u>6-21-07</u>							

Data record continuation on page 2? Y N

Other Field Measurements NLF-MW04-S-062007 402 JAR
 Parameter(s) Test Method(s) Result(s)

Fluid collected for laboratory analysis: # & type of containers _____ Custody Form completed for these samples? Y N
 Analytes/parameters requested: _____ Holding Time in Field _____
 Receiving Laboratory: _____ Shipping Method _____ Date Shipped _____

Recorded by [Signature] Date 6-21-07 Reviewed by _____ Date _____

ENVIRONMENTAL CHEMICAL CORPORATION

GROUNDWATER QUALITY FIELD PARAMETERS
in accordance with ECC SOP E-1205

ALF Sampling Event

Date 6-20-07 Weather Over-Cast 72° ECC Project No. Mead NOP Well ID NEF-MW02I
Client/Site MEAD-NOP Upl Wellhead/water surface PID Reading _____ ppm Other conditions _____

SAMPLING METHOD Low Flow Purge/Sample No. of casing volumes purged _____ Lift method: bailer _____ bladder pump
other extraction equipment, if any (describe) ALF Pro Bladder Pump dedicated?
FILTERED Y N If Yes, filter media _____ Micron size _____
Purge Volume

WATER QUALITY TEST RESULTS

TIME 24 hr format <i>set</i> <i>0940</i>	Flowrate, volume _____ per minute	Cumulative Production, gallons	Depth to water, ft	pH	TEMP. °C.	Conductivity, Mmhos/cm (TDS)	Turbidity, NTUS (TSS) Not required for Extraction well	REDOX/Eh Potential, mV Not required for Extraction well	Diss.Oxy. mg/L Not required for Extraction well
<i>0950</i>	<i>400 ml</i>		<i>33.80</i>	<i>6.18</i>	<i>14.30</i>	<i>.374</i>	<i>67.6</i>	<i>133.7</i>	<i>2.06</i>
<i>0955</i> <i>0955</i>	<i>400 ml</i>		<i>33.90</i>	<i>6.17</i>	<i>14.06</i>	<i>.362</i>	<i>39.9</i>	<i>128.6</i>	<i>1.47</i>
<i>1000</i>	<i>400 ml</i>		<i>33.92</i>	<i>6.16</i>	<i>14.02</i>	<i>.346</i>	<i>23.7</i>	<i>125.9</i>	<i>1.21</i>
<i>1005</i>	<i>400 ml</i>		<i>33.94</i>	<i>6.15</i>	<i>13.99</i>	<i>.334</i>	<i>19.4</i>	<i>124.2</i>	<i>1.02</i>
<i>1010</i>	<i>400 ml</i>		<i>33.94</i>	<i>6.14</i>	<i>14.02</i>	<i>.329</i>	<i>13.7</i>	<i>124.1</i>	<i>.88</i>
Post-sampling	<i>400 ml</i>		<i>33.94</i>	<i>6.14</i>	<i>14.02</i>	<i>.329</i>	<i>13.2</i>	<i>124.1</i>	<i>.88.</i>
Instrument	Identification:	<i>YSI 556 MPS Flow Cell</i>							
Calibration	Date:	<i>6-20-07</i>							

Data record continuation on page 2? Y N

Other Field Measurements ALF-MW02-I-062007 1.402 Jar ALF-MW02-I-062007
Parameter(s) Test Method(s) Result(s) *Pump Depth 53.0'*

Fluid collected for laboratory analysis: # & type of containers _____ Custody Form completed for these samples? Y N
Analytes/parameters requested: _____ Holding Time in Field _____
Receiving Laboratory: _____ Shipping Method _____ Date Shipped _____

Recorded by *Ralph L. Hart* Date *6-20-07* Reviewed by _____ Date _____

ENVIRONMENTAL CHEMICAL CORPORATION

GROUNDWATER QUALITY FIELD PARAMETERS *NLF June 2007 Sampling Event*
 in accordance with ECC SOP E-1205

Date 6-20-07 Weather Sunny 94° ECC Project No. NLF Mead NOP Well ID NLF-MW07-I
 Client/Site UN/ Mead NOP Wellhead/water surface PID Reading _____ ppm Other conditions _____

SAMPLING METHOD Low Flow Purge/Sample No. of casing volumes purged _____ Lift method: bailer _____ bladder pump X
 other extraction equipment, if any (describe) QED Pro Bladder Pump dedicated? Y N
 FILTERED Y N If Yes, filter media _____ Micron size _____ *Purge Water Contained.*

WATER QUALITY TEST RESULTS

TIME 24 hr format	Flowrate, volume _____ per minute	Cumulative Production, gallons	Depth to water, ft	pH	TEMP. °C	Conductivity, Mmhos/cm (TDS)	Turbidity, NTUS (TSS) Not required for Extraction well	REDOX/Eh Potential, mV Not required for Extraction well	Diss.Oxy. mg/L Not required for Extraction well
<u>1705</u>									
<u>1710</u>	<u>350ml</u>		<u>41.18</u>	<u>6.71</u>	<u>15.35</u>	<u>0.421</u>	<u>5.08</u>	<u>96.0</u>	<u>2.02</u>
<u>1715</u>	<u>350ml</u>		<u>41.45</u>	<u>6.69</u>	<u>15.03</u>	<u>0.416</u>	<u>3.33</u>	<u>93.2</u>	<u>1.26</u>
<u>1720</u>	<u>400ml</u>		<u>41.48</u>	<u>6.67</u>	<u>14.84</u>	<u>0.415</u>	<u>1.98</u>	<u>89.1</u>	<u>0.86</u>
<u>1725</u>	<u>400ml</u>		<u>41.51</u>	<u>6.67</u>	<u>14.39</u>	<u>0.415</u>	<u>1.09</u>	<u>84.6</u>	<u>0.57</u>
<u>1730</u>	<u>400ml</u>		<u>41.51</u>	<u>6.68</u>	<u>14.24</u>	<u>0.415</u>	<u>0.71</u>	<u>79.5</u>	<u>0.46</u>
Post-sampling	<u>400ml</u>			<u>6.68</u>	<u>14.24</u>	<u>0.415</u>	<u>0.71</u>	<u>79.5</u>	<u>0.46</u>
Instrument	Identification:	<u>95I 556 MPS Flow Cell</u>							
Calibration	Date:	<u>6-20-07</u>							

Data record continuation on page 2? Y N

Other Field Measurements NLF-MW07-I-062007 / 462 Jar *Purge Water - Contained.*
 Parameter(s) Test Method(s) Result(s) 2.4 gallons

Fluid collected for laboratory analysis: # & type of containers _____ Custody Form completed for these samples? Y N
 Analytes/parameters requested: _____ Holding Time in Field _____
 Receiving Laboratory: _____ Shipping Method _____ Date Shipped _____

Recorded by [Signature] Date 6-20-07 Reviewed by _____ Date _____

ENVIRONMENTAL CHEMICAL CORPORATION

GROUNDWATER QUALITY FIELD PARAMETERS

NLF June 2007 Sampling Event

in accordance with ECC SOP E-1205

Date 6-20-07 Weather Sunny 94° ECC Project No. NLF Mead NOP Well ID NLF-MW07-5
 Client/Site UN/ Mead NOP Wellhead/water surface PID Reading _____ ppm Other conditions _____

SAMPLING METHOD Low Flow Purge/Sample No. of casing volumes purged _____ Lift method: bailer _____ bladder pump
 other extraction equipment, if any (describe) QED Pro bladder Pump dedicated? Y N
 FILTERED Y N If Yes, filter media _____ Micron size _____ Purge water Contained

WATER QUALITY TEST RESULTS

TIME 24 hr format	Flowrate, volume per minute	Cumulative Production, gallons	Depth to water, ft	pH	TEMP. °C.	Conductivity, Mmhos/cm (TDS)	Turbidity, NTUS (TSS) Not required for Extraction well	REDOX/Eh Potential, mV Not required for Extraction well	Diss.Oxy. mg/L Not required for Extraction well
1630	350ml		41.40	6.73	15.56	0.415	97.9	89.7	2.07
1635	350ml		41.42	6.68	15.22	0.409	65.2	84.1	1.73
1640	350ml		41.42	6.69	14.92	0.407	45.4	77.7	1.42
1645	350ml		41.42	6.68	15.01	0.406	23.8	74.1	1.33
1650	350ml		41.42	6.67	15.04	0.407	14.3	72.1	1.46
Post-sampling	350 ml		41.42	6.67	15.04	0.407	14.3	72.1	1.46
Instrument	Identification:	<u>457 MPS 556 Flow Cell</u>							
Calibration	Date:	<u>6-20-07</u>							

Data record continuation on page 2? Y N

Other Field Measurements NLF-MW07-5-062007 / 4oz Jar. Set Pump 45.0'
 Parameter(s) Test Method(s) Result(s)

Fluid collected for laboratory analysis: # & type of containers _____ Custody Form completed for these samples? Y N
 Analytes/parameters requested: _____ Holding Time in Field _____
 Receiving Laboratory: _____ Shipping Method _____ Date Shipped _____

Recorded by [Signature] Date 6-20-07 Reviewed by _____ Date _____

ENVIRONMENTAL CHEMICAL CORPORATION

GROUNDWATER QUALITY FIELD PARAMETERS

NLF June 2007 Sampling Event

in accordance with ECC SOP E-1205

Date 6-20-07 Weather Sunny 92° ECC Project No. NLF Mead NP Well ID NLF-MW06-I
 Client/Site GM/NLF Mead NP Wellhead/water surface PID Reading _____ ppm Other conditions _____

SAMPLING METHOD Low Flow Purge/Sample No. of casing volumes purged _____ Lift method: bailer _____ bladder pump X
 other extraction equipment, if any (describe) QED Pro Bladder Pump dedicated? Y N
 FILTERED Y N If Yes, filter media _____ Micron size _____
Purge Water Contained
2.59 gallons

WATER QUALITY TEST RESULTS

TIME 24 hr format <u>ST</u> <u>1540</u>	Flowrate, volume _____ per minute	Cumulative Production, gallons	Depth to water, ft	pH	TEMP. °C.	Conductivity, Mmhos/cm (TDS)	Turbidity, NTUS (TSS) Not required for Extraction well	REDOX/Eh Potential, mV Not required for Extraction well	Diss.Oxy. mg/L Not required for Extraction well
<u>1545</u>	<u>400ml</u>		<u>40.83</u>	<u>6.68</u>	<u>15.35</u>	<u>0.408</u>	<u>32.0</u>	<u>106.1</u>	<u>1.26</u>
<u>1550</u>	<u>400ml</u>		<u>41.26</u>	<u>6.62</u>	<u>14.47</u>	<u>0.405</u>	<u>20.4</u>	<u>94.1</u>	<u>0.82</u>
<u>1555</u>	<u>400ml</u>		<u>41.26</u>	<u>6.64</u>	<u>14.42</u>	<u>0.405</u>	<u>8.82</u>	<u>83.2</u>	<u>0.66</u>
<u>1600</u>	<u>400ml</u>		<u>41.27</u>	<u>6.63</u>	<u>14.26</u>	<u>0.406</u>	<u>6.39</u>	<u>78.0</u>	<u>0.57</u>
<u>1605</u>	<u>400ml</u>		<u>41.27</u>	<u>6.62</u>	<u>14.18</u>	<u>0.406</u>	<u>10.1</u>	<u>71.5</u>	<u>0.45</u>
Post-sampling	<u>400ml</u>		<u>41.27</u>	<u>6.62</u>	<u>14.18</u>	<u>0.406</u>	<u>10.1</u>	<u>71.5</u>	<u>0.45</u>
Instrument	Identification:	<u>45F 556</u>	<u>MPS Flow Cell</u>						
Calibration	Date:	<u>6-20-07</u>							

Data record continuation on page 2? Y N

Other Field Measurements NLF-MW06-I-062007 / 402 Jar Pump set 57.0
 Parameter(s) Test Method(s) Result(s)

Fluid collected for laboratory analysis: # & type of containers _____ Custody Form completed for these samples? Y N
 Analytes/parameters requested: _____ Holding Time in Field _____
 Receiving Laboratory: _____ Shipping Method _____ Date Shipped _____

Recorded by J. H. Kat Date 6-20-07 Reviewed by _____ Date _____

ENVIRONMENTAL CHEMICAL CORPORATION

GROUNDWATER QUALITY FIELD PARAMETERS *NLF June 2007 Sampling Event*

in accordance with ECC SOP E-1205

Date 6-20-07 Weather Sunny 90° ECC Project No. NLF Mead NOP Well ID NLF-MW06-S
 Client/Site EN / NLF Mead NOP Wellhead/water surface PID Reading _____ ppm Other conditions _____

SAMPLING METHOD Low Flow Purge/Sample No. of casing volumes purged _____ Lift method: bailer _____ bladder pump
 FILTERED Y N other extraction equipment, if any (describe) QEP Bladder Pump Pro. dedicated? Y N
 If Yes, filter media _____ Micron size _____ *Purge Water Contained: 2.2 gallons*

WATER QUALITY TEST RESULTS

TIME 24 hr format	Flowrate, volume _____ per minute	Cumulative Production, gallons	Depth to water, ft	pH	TEMP. °C.	Conductivity, Mmhos/cm (TDS)	Turbidity, NTUS (TSS) Not required for Extraction well	REDOX/Eh Potential, mV Not required for Extraction well	Diss.Oxy. mg/L Not required for Extraction well
1505	350ml		40.71	6.43	15.95	0.564	98.0	102.2	4.57
1510	350ml		40.75	6.40	15.22	0.554	44.4	102.4	4.28
1515	350ml		40.75	6.40	14.74	0.555	30.7	99.9	4.32
1520	350ml		40.75	6.38	14.68	0.553	31.8	98.4	4.25
1525	350ml		40.75	6.48	14.77	0.527	71.6	85.2	3.65
Post-sampling	350ml		40.75	6.48	14.77	0.527	71.6	85.2	3.65
Instrument	Identification:	<u>457 556 MPS Flow Cell</u>							
Calibration	Date:	<u>6-20-07</u>							

Data record continuation on page 2? Y N

Other Field Measurements NLF-MW06-S 062007 / 402 Jar
 Parameter(s) Test Method(s) Result(s) Set Pump 42.0

Fluid collected for laboratory analysis: # & type of containers _____ Custody Form completed for these samples? Y N
 Analytes/parameters requested: _____ Holding Time in Field _____
 Receiving Laboratory: _____ Shipping Method _____ Date Shipped _____

Recorded by [Signature] Date 6-20-07 Reviewed by _____ Date _____

ENVIRONMENTAL CHEMICAL CORPORATION

GROUNDWATER QUALITY FIELD PARAMETERS *NLF Sampling Event A*

in accordance with ECC SOP E-1205

Date 6-20-07 Weather Sunny 90° ECC Project No. NLF Mead NOP Well ID NLF-MW05-I
 Client/Site NLF Mead NOP Wellhead/water surface PID Reading _____ ppm Other conditions _____

SAMPLING METHOD Low Flow Purge/Sample No. of casing volumes purged _____ Lift method: bailer _____ bladder pump X
 FILTERED Y N other extraction equipment, if any (describe) RED Pro Bladder Pumps dedicated? Y N
 If Yes, filter media _____ Micron size _____ Purge Water Collected 2.4 gallons

WATER QUALITY TEST RESULTS

TIME 24 hr format	Flowrate, volume _____ per minute	Cumulative Production, gallons	Depth to water, ft	pH	TEMP. °C.	Conductivity, Mmhos/cm (TDS)	Turbidity, NTUS (TSS) Not required for Extraction well	REDOX/Eh Potential, mV Not required for Extraction well	Diss.Oxy. mg/L Not required for Extraction well
1320	450ml		38.27	6.55	15.01	0.414	72.4	79.7	1.20
1325	450ml		38.53	6.52	14.42	0.407	40.0	69.0	0.58
1330	450ml		38.53	6.51	14.22	0.406	41.0	66.3	0.50
1335	450ml		38.53	6.51	14.13	0.404	55.8	64.3	0.45
1340	450ml		38.53	6.51	14.16	0.403	55.7	62.5	0.44
Post-sampling	450ml		38.53	6.51	14.16	0.403	55.7	62.5	0.44
Instrument	Identification:	<u>YSI MP5556 FlowCell</u>							
Calibration	Date:	<u>6-20-07</u>							

Data record continuation on page 2? Y N

Other Field Measurements NLF-MW05-I-062007(14.2 jar) NLF-MW05-I-062007ms(1.4oz jar) NLF-MW05-I-062007msD
 Parameter(s) Test Method(s) Result(s) SET Pump 50.0

Fluid collected for laboratory analysis: # & type of containers _____ Custody Form completed for these samples? Y N
 Analytes/parameters requested: _____ Holding Time in Field _____
 Receiving Laboratory: _____ Shipping Method _____ Date Shipped _____

Recorded by [Signature] Date 6-20-07 Reviewed by _____ Date _____

ENVIRONMENTAL CHEMICAL CORPORATION

GROUNDWATER QUALITY FIELD PARAMETERS

NFL Sampling Event

in accordance with ECC SOP E-1205

Date 6-20-07 Weather Sunny 88° ECC Project No. NLF Mead NOP Well ID NLF-MW05-5
 Client/Site NU / NLF Mead NOP Wellhead/water surface PID Reading _____ ppm Other conditions _____

SAMPLING METHOD Low Flow Purge/Sample No. of casing volumes purged _____ Lift method: bailer _____ bladder pump
 FILTERED Y N other extraction equipment, if any (describe) QED Bladder Pump Pro. dedicated? Y N
 If Yes, filter media _____ Micron size _____
Purge Water Contained
2.29 gal

WATER QUALITY TEST RESULTS

TIME 24 hr format	Flowrate, volume per minute	Cumulative Production, gallons	Depth to water, ft	pH	TEMP. °C.	Conductivity, Mmhos/cm (TDS)	Turbidity, NTUS (TSS) Not required for Extraction well	REDOX/Eh Potential, mV Not required for Extraction well	Diss.Oxy. mg/L Not required for Extraction well
1240	400ml		38.92	6.67	15.39	0.431	100.00	93.7	1.53
1245	400ml		39.00	6.65	14.50	0.428	129.0	75.6	1.11
1250	400ml		39.02	6.66	14.21	0.429	67.9	61.9	0.95
1255	400ml		39.01	6.63	14.34	0.429	34.9	56.0	0.93
1300	400ml		39.01	6.65	14.34	0.429	23.0	55.1	0.91
Post-sampling	400ml		39.01	6.65	14.34	0.429	23.0	55.1	0.91
Instrument	Identification:	455 556	MPS flow cell						
Calibration	Date:	6-20-07							

Data record continuation on page 2? Y N

Other Field Measurements NFL-MW05-5-062007 1402 Jar Set Pump 41.0
 Parameter(s) Test Method(s) Result(s)

Fluid collected for laboratory analysis: # & type of containers _____ Custody Form completed for these samples? Y N
 Analytes/parameters requested: _____ Holding Time in Field _____
 Receiving Laboratory: _____ Shipping Method _____ Date Shipped _____

Recorded by [Signature] Date 6-20-07 Reviewed by _____ Date _____

ENVIRONMENTAL CHEMICAL CORPORATION

GROUNDWATER QUALITY FIELD PARAMETERS

NLF Sampling Event

in accordance with ECC SOP E-1205

Date 6-20-07 Weather Sunny 76° ECC Project No. Mead NoP Well ID NLF-MW025
 Client/Site UN - Mead Friop Wellhead/water surface PID Reading _____ ppm Other conditions _____

SAMPLING METHOD Low Flow Purge/Sample No. of casing volumes purged _____ Lift method: bailer _____ bladder pump X
 other extraction equipment, if any (describe) QED Pro Pump dedicated? Y (N)
 FILTERED Y (N) If Yes, filter media _____ Micron size _____
 Purge Volume 2 gallons

WATER QUALITY TEST RESULTS

TIME 24 hr format	Flowrate, volume _____ per minute	Cumulative Production, gallons	Depth to water, ft	pH	TEMP. °C.	Conductivity, Mmhos/cm (TDS)	Turbidity, NTUS (TSS) Not required for Extraction well	REDOX/Eh Potential, mV Not required for Extraction well	Diss.Oxy. mg/L Not required for Extraction well
0850	350ml		33.43	5.41	14.38	.486	245.0	201.8	4.50
0855	350ml		33.52	5.42	14.00	.490	204.0	200.7	4.20
0900	350ml		33.53	5.64	13.86	.539	97.3	191.0	5.09
0905	350ml		33.53	5.89	13.87	.552	38.3	172.9	5.53
0910	350ml		33.53	6.07	13.81	.542	27.2	161.9	5.39
Post-sampling	350 ml		33.53	6.07	13.81	.542	27.2	161.9	5.39
Instrument	Identification:	<u>45L Flow Cell</u>							
Calibration	Date:	<u>6-20-07</u>							

Data record continuation on page 2? Y N

Other Field Measurements NLF-MW02-5-062007 1402 JAT Pump Depth 38.0
 NLF Parameter(s) Test Method(s) Result(s) Purge Water 2gallon

Fluid collected for laboratory analysis: # & type of containers _____ Custody Form completed for these samples? Y N
 Analytes/parameters requested: _____ Holding Time in Field _____
 Receiving Laboratory: _____ Shipping Method _____ Date Shipped _____

Recorded by R. L. Watt Date 6-20-07 Reviewed by _____ Date _____

ENVIRONMENTAL CHEMICAL CORPORATION

GROUNDWATER QUALITY FIELD PARAMETERS

NLF Sampling Event

in accordance with ECC SOP E-1205

Date 6-20-07 Weather Sunny 86° ECC Project No. NLF Mead NOP Well ID NLF-MW03-I
 Client/Site NLF Mead NLF NOP Wellhead/water surface PID Reading _____ ppm Other conditions _____

SAMPLING METHOD Low Flow Purge/Sample No. of casing volumes purged _____ Lift method: bailer _____ bladder pump X
 other extraction equipment, if any (describe) GED Pnp Bladder Pump dedicated? Y (N)
 FILTERED Y (N) If Yes, filter media _____ Micron size _____
 Purge Volume Contained 2.3 gallons

WATER QUALITY TEST RESULTS

TIME 24 hr format	Flowrate, volume per minute	Cumulative Production, gallons	Depth to water, ft	pH	TEMP. °C.	Conductivity, Mmhos/cm (TDS)	Turbidity, NTUS (TSS) Not required for Extraction well	REDOX/Eh Potential, mV Not required for Extraction well	Diss.Oxy. mg/L Not required for Extraction well
1130									
1135	400ml		36.33	6.26	15.09	0.342	21.4	121.0	1.68
1140	400ml		36.40	6.22	14.43	0.329	11.2	118.8	1.04
1145	400ml		36.70	6.21	14.16	0.329	7.42	115.0	0.75
1150	400ml		36.75	6.21	14.19	0.331	5.32	112.8	0.65
1155	400ml		36.75	6.22	14.09	0.332	3.02	109.7	0.61
Post-sampling	400ml		36.75	6.22	14.09	0.332	3.02	109.7	0.61
Instrument	Identification:	YSI 556 MP5 Flow Cell							
Calibration	Date:	6-20-07							

Data record continuation on page 2? Y N

Other Field Measurements NLF-MW03-I-062007 1402 Jar Set Pump 58.0
 Parameter(s) Test Method(s) Result(s)

Fluid collected for laboratory analysis: # & type of containers _____ Custody Form completed for these samples? Y N
 Analytes/parameters requested: _____ Holding Time in Field _____
 Receiving Laboratory: _____ Shipping Method _____ Date Shipped _____

Recorded by [Signature] Date 6-20-07 Reviewed by _____ Date _____

ENVIRONMENTAL CHEMICAL CORPORATION

GROUNDWATER QUALITY FIELD PARAMETERS

NLF Sampling Event

in accordance with ECC SOP E-1205

Date 6-20-07 Weather Sunny 82° ECC Project No. NLF-Mead NoP Well ID NLF-MW03-5-062007
 Client/Site NLF-Mead-NLF NoP Wellhead/water surface PID Reading _____ ppm Other conditions _____

SAMPLING METHOD Low Flow Purge/Sample No. of casing volumes purged _____ Lift method: bailer _____ bladder pump X
 other extraction equipment, if any (describe) QED Per Bladder Pump dedicated? Y (N)
 FILTERED Y (N) If Yes, filter media _____ Micron size _____
 Purge Volume 2.1 gallons

WATER QUALITY TEST RESULTS

TIME 24 hr format	Flowrate, volume per minute	Cumulative Production, gallons	Depth to water, ft	pH	TEMP. °C.	Conductivity, Mmhos/cm (TDS)	Turbidity, NTUS (TSS) Not required for Extraction well	REDOX/Eh Potential, mV Not required for Extraction well	Diss.Oxy. mg/L Not required for Extraction well
1050									
1055	350ml		37.07	6.55	15.06	0.445	10.4	144.0	2.91
1100	350ml		37.11	6.60	14.41	0.444	5.62	135.3	2.25
1105	350ml		37.13	6.60	14.28	0.444	3.44	127.1	1.97
1110	350ml		37.13	6.62	14.15	0.446	7.97	118.8	1.48
1115	350ml		37.13	6.64	13.90	0.447	1.56	112.6	1.24
Post-sampling	350ml		37.13	6.64	13.90	0.447	1.56	112.6	1.24
Instrument	Identification:	45I 556 MPS Flow Cell							
Calibration	Date:	6-20-07							

Data record continuation on page 2? Y N

Other Field Measurements NLF-MW03-5-062007 / 4oz Jar. Pump set 40.0'
 Parameter(s) Test Method(s) Result(s)

Fluid collected for laboratory analysis: # & type of containers _____ Custody Form completed for these samples? Y N
 Analytes/parameters requested: _____ Holding Time in Field _____
 Receiving Laboratory: _____ Shipping Method _____ Date Shipped _____

Recorded by [Signature] Date _____ Reviewed by _____ Date _____

Project Name -Mead NOP NLF JUNE 2007 MW Sampling Event

DATE : 06/20/2007

Contract No.: W912DQ-04-D-0017 Task Order 0001

Weather : Sunny 94 degrees wind 5 mph

Work Performed by: Ralph Vest (ASW), Dennis Krei (ASW)

MW SAMPLED

NLF-MW02-S-062007	1,4 DITIANE,1,4THIOXANE,THIODIGLYCOL
NLF-MW02-I-062007	1,4 DITIANE,1,4THIOXANE,THIODIGLYCOL (QC)
NLF-MW05-S-062007	1,4 DITIANE,1,4THIOXANE,THIODIGLYCOL
NLF-MW05-I-062007	1,4 DITIANE,1,4THIOXANE,THIODIGLYCOL (MS/MSD)
NLF-MW06-S-062007	1,4 DITIANE,1,4THIOXANE,THIODIGLYCOL
NLF-MW06-I-062007	1,4 DITIANE,1,4THIOXANE,THIODIGLYCOL
NLF-MW07-S-062007	1,4 DITIANE,1,4THIOXANE,THIODIGLYCOL
NLF-MW07-I-062007	1,4 DITIANE,1,4THIOXANE,THIODIGLYCOL
NLF-MW03-S-062007	1,4 DITIANE,1,4THIOXANE,THIODIGLYCOL
NLF-MW03-I-062007	1,4 DITIANE,1,4THIOXANE,THIODIGLYCOL

Other Notes : Sampled 10 NLF Monitoring Wells today
All samples sealed on ice in refrig.

Look Ahead : Continue sampling NLF wells
ship all samples to ECBC Lab

Safety Meeting Issues : Safety meeting and sign-in
Water sampling safety, No drinking, smoking, eating while sampling
Be careful walking in tall grass,
Safety around monitoring wells
Beautiful day stay alert
Hand protection wear Nitrile gloves
Driving in unfamiliar areas in wet conditions
Insect bites in the field
Reviewed safety precaution that deal with monitoring wells sampling
Working and driving in heavy rain

Project Name -Mead NOP NLF JUNE 2007 MW Sampling Event

DATE : 06/21/2007

Contract No.: W912DQ-04-D-0017 Task Order 0001

Weather : Sunny 92 degrees wind 10 to 15 mph

Work Performed by: Ralph Vest (ASW), Dennis Krei (ASW)

MW SAMPLED

NLF-MW04-S-062007	1,4 DITIANE,1,4THIOXANE,THIODIGLYCOL
NLF-MW04-I-062007	1,4 DITIANE,1,4THIOXANE,THIODIGLYCOL

Other Notes : Sampled 2 NLF Monitoring Wells today
All samples sealed on ice packed in cooler shipped to ECBC lab
Final shipment NLF June 2007 sampling Event

Look Ahead : University Landfill sampling complete

Safety Meeting Issues : Safety meeting and sign-in
Water sampling safety, No drinking, smoking, eating while sampling
Be careful walking in tall grass,
Safety around monitoring wells
Beautiful day stay alert
Hand protection wear Nitrile gloves
Driving in unfamiliar areas in wet conditions
Insect bites in the field
Reviewed safety precaution that deal with monitoring wells sampling
Working and driving in heavy rain
Drinking water & breaks in Hot weather