

3R - 087

**ANNUAL
MONITORING
REPORT**

03/08/2005



3R087

GROUNDWATER MONITORING REPORT

FEDERAL #15 FARMINGTON, NEW MEXICO

Prepared for:



600 North Dairy Ashford
Houston, TX 77079

Prepared by:



10601 Lomas NE, Suite 106
Albuquerque, NM 87112
Maxim Project No. 5690070.100

March 8, 2005

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GROUNDWATER MONITORING REPORT FEDERAL #15, FARMINGTON, NEW MEXICO

1.0 INTRODUCTION

This report presents the results of groundwater monitoring completed on January 17 and 18, 2005, at the ConocoPhillips Federal #15 Site in Farmington, New Mexico, by Maxim Technologies (Maxim).

The site is located on the North side of Gila Street. The closest cross street is Main Street, located approximately 0.5 mile to the west of the site. The site consists of gas production well and associated equipment and installations. The location and general features of the Federal #15 site are shown on Figures 1 and 2, respectively.

On Saturday, October 23, 2004 a release was discovered at the site. It was estimated that up to 50 BBL of condensate was unaccounted for. The Release Notification and Corrective Action form is attached in Appendix A. Approximately 1,550 cubic yards of affected soil was excavated during the week of October 25, 2004. Figure 2 illustrates the approximate location of the excavated area. Four, 2-inch PVC groundwater monitoring wells were installed on November 16 and 17, 2004 by Biosphere Environmental Sciences and Technologies, LLC to depths of approximately 20 feet below ground surface (bgs). Groundwater was encountered between 12 and 15 feet bgs. Boring logs and well completion diagrams are included as Appendix B.

On January 17 and 18, 2005 Maxim was onsite to conduct the groundwater sampling event. The four monitoring wells were developed and sampled. Top of monitor well casing elevations were recorded by NCE Surveys of Farmington, New Mexico on February 4, 2005.

2.0 METHODOLOGY AND RESULTS

The following describes the groundwater monitoring methodology and results:

2.1 Groundwater Monitoring Methodology

On January 17, 2005 monitor wells MW-1, MW-2, MW-3, and MW-4 were purged until water was clear of visible sediment. Approximately 20 gallons of water was removed from each well. The purged water was disposed of in the waste water sump located on site (Figure 2).

On January 18, 2005 monitor wells MW-1, MW-2, MW-3, and MW-4 were purged of at least three casing volumes of water. A 1.5-inch dedicated, clear, poly-vinyl, disposable bailer was used in each well to collect groundwater samples. The samples were placed in laboratory prepared bottles, packed on ice, and shipped with chain of custody documentation to Severn Trent Laboratories located in Denver, Colorado. The samples were analyzed for presence of benzene, toluene, ethyl-benzene, and xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260B, semi-volatile organic compounds (SVOCs) by EPA Method 8270C, and chloride by EPA Method 300.0A.

Groundwater levels were recorded before well development and sampling. The water levels collected prior to sampling were used to create the groundwater elevation contour map shown as Figure 3. Table 1 presents the groundwater levels and the top of casing survey results used to calculate the groundwater elevations at the site.

2.2 Groundwater Sampling Analytical Results

The samples collected from monitor wells MW-2 and MW-3 contained concentrations of benzene above the New Mexico Water Quality Control Commission (NMWQCC) standard of 10 µg/L, at 1,200 micrograms per liter (µ/L) and 190 µg/L, respectively. The sample collected from MW-4 contained benzene below the NMWQCC standard at 2.8 µg/L. The sample collected from MW-1 did not contain detectable benzene.

The sample collected from MW-2 contained concentrations of toluene and xylenes of 3,300 µg/L and 3,500 µg/L, respectively. The NMWQCC standards for toluene and xylenes are 750 µg/L and 620 µg/L, respectively. All other samples were non-detect for toluene and xylenes.

The sample collected from MW-2 contained a concentration of ethyl-benzene at 380 µg/L, below the NMWQCC standard of 750 µg/L. All other samples were non-detect for ethyl-benzene.

The sample collected from MW-2 contained a total naphthalenes concentration of 157 µg/L. The NMWQCC standard for total naphthalenes is 30 µg/L. All other samples were non-detect for total naphthalenes.

All samples contained chloride concentrations below the NWMQCC standard of 250 mg/L (milligrams per liter). Chloride concentrations ranged from 34 mg/L in MW-3 to 85 mg/L in MW-1.

Table 2 presents the laboratory analytical results. The laboratory analytical report is included as Appendix C.

APPENDIX A
RELEASE NOTIFICATION AND
CORRECTIVE ACTION FORM

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	ConocoPhillips Company	Contact	Monica D. Olson	
Address	5525 Hwy. 64, Farmington, NM 87401	Telephone No.	505-599-3458	
Facility Name	Federal #15	Facility Type	Producing Gas Well	API # 30-045-20078
Surface Owner	Private	Mineral Owner	Federal	Lease No. NM-73982

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	1	T29N	R13W	1040'	North	360'	East	San Juan

Latitude 36.75963 Longitude 108.14885

NATURE OF RELEASE

Type of Release - Condensate	Volume of Release - ~ 15 BBL	Volume Recovered - none
Source of Release: Leaking 300 BBL condensate tank	Date and Hour of Occurrence 10/23/04 - 12:00 p.m.	Date and Hour of Discovery 10/23/04 - 12:00 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Denny Foust - OCD - 10/25/04 via email	
By Whom? Monica Olson	Date and Hour - 10/25/04 - 3:45 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* **A ConocoPhillips lease operator received a call from passers-by on Saturday, October 23rd of a spill on the Federal #15, located off of Gila Street near Halliburton/Walgreens in Farmington. Upon inspection, a ring of paraffin / condensate was found on the grade band on which the 300 BBL condensate tank sits, and appeared to be about a 3 BBL spill. The well was shut in. Upon further investigation into the tank gauge readings, there could be up to 50 BBL of condensate unaccounted for.**

Upon site investigation on Monday, October 25th, hand digging with a shovel showed an affected area of 21' x 21' x 3' deep (at least), which calculates to a 15 BBL spill. A One-Call has been submitted, and digging and remediation will begin on Wednesday, October 27th. If necessary, the spill volume will be changed to reflect the actual amount spilled based on soils excavated from the location.

Describe Area Affected and Cleanup Action Taken.* **No fluids appeared to leave the location. The well has been shut in. Soil stained from this spill will be excavated and brought to the Envirotech landfarm for remediation. Remediation activities are planned for Wednesday, October 27th.**

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

OIL CONSERVATION DIVISION

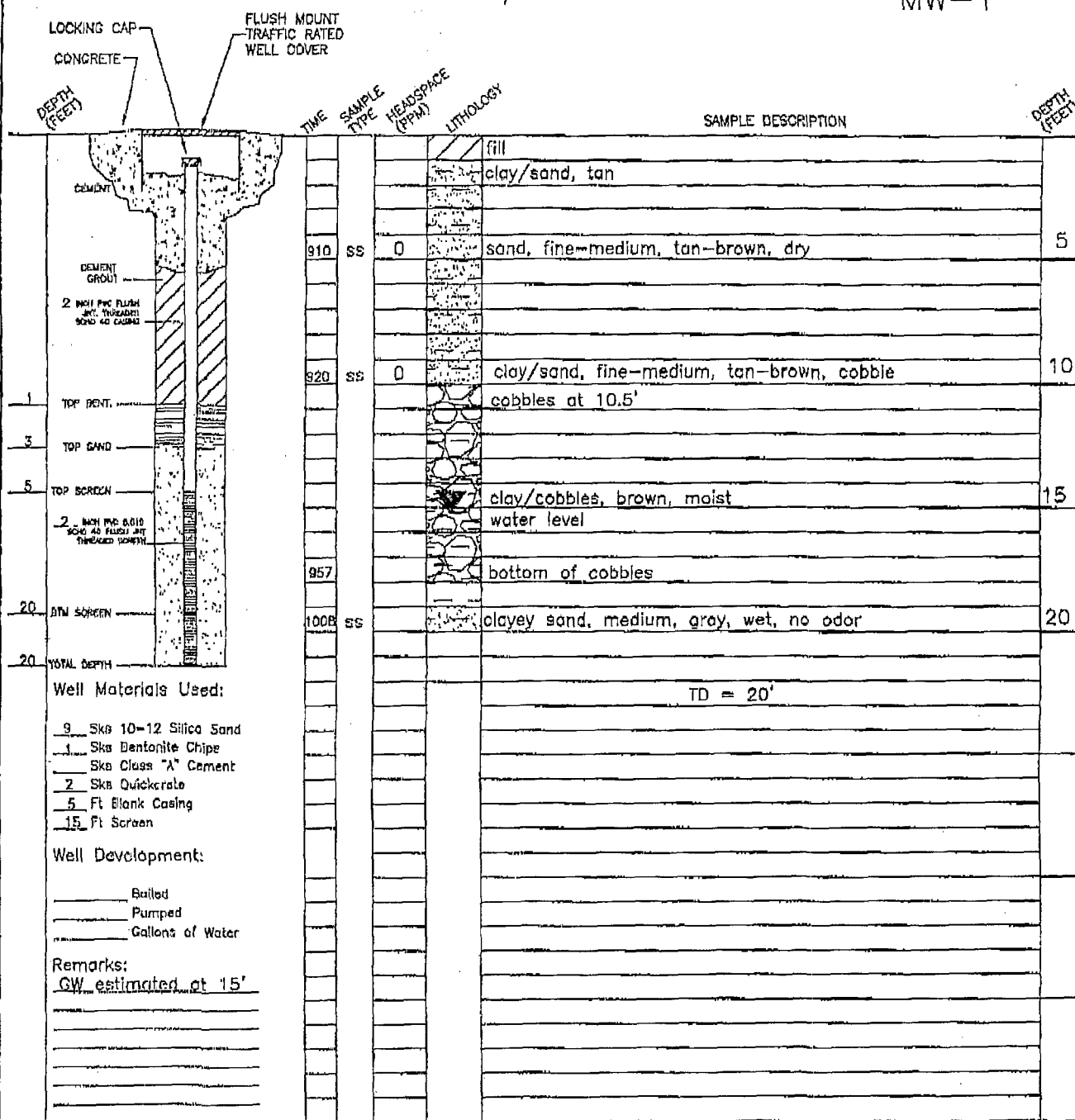
Signature: <i>Monica D. Olson</i>	Approved by District Supervisor:	
Printed Name: Monica D. Olson		
Title: Safety, Health, Environmental, & Regulatory Technician	Approval Date:	Expiration Date:
E-mail Address: monica.olson@conocophillips.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 10/25/04 Phone: 505-599-3458		

* Attach Additional Sheets If Necessary

APPENDIX B
BORING LOGS

BELOW GRADE WELL COMPLETION DIAGRAM / LITHOLOGY LOG

MW-1



DRILLER: KELLY PADILLA
 HELPER: Farrell Chae/Jerald Joe
 DRILLING COMPANY: ENVIROTECH
 DRILLING METHOD: HSA

BIT SIZE: 7 7/8
 TOTAL BORING DEPTH: 20'
 DATE STARTED: 11/17/04
 SAMPLER TYPE: SS

LOCATION: Fed Comp 15 Unit A
 ELEVATION: _____
 DATE COMPLETED 11/17/04
 GEOLOGIST: Jack Collins

Conoco Phillips
 Fed Comp 15 Unit A
 Farmington, New Mexico

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS
 5796 U.S. HIGHWAY 64
 FARMINGTON, NEW MEXICO 87401
 (505) 632-0615
 BioOrdnng.dwg

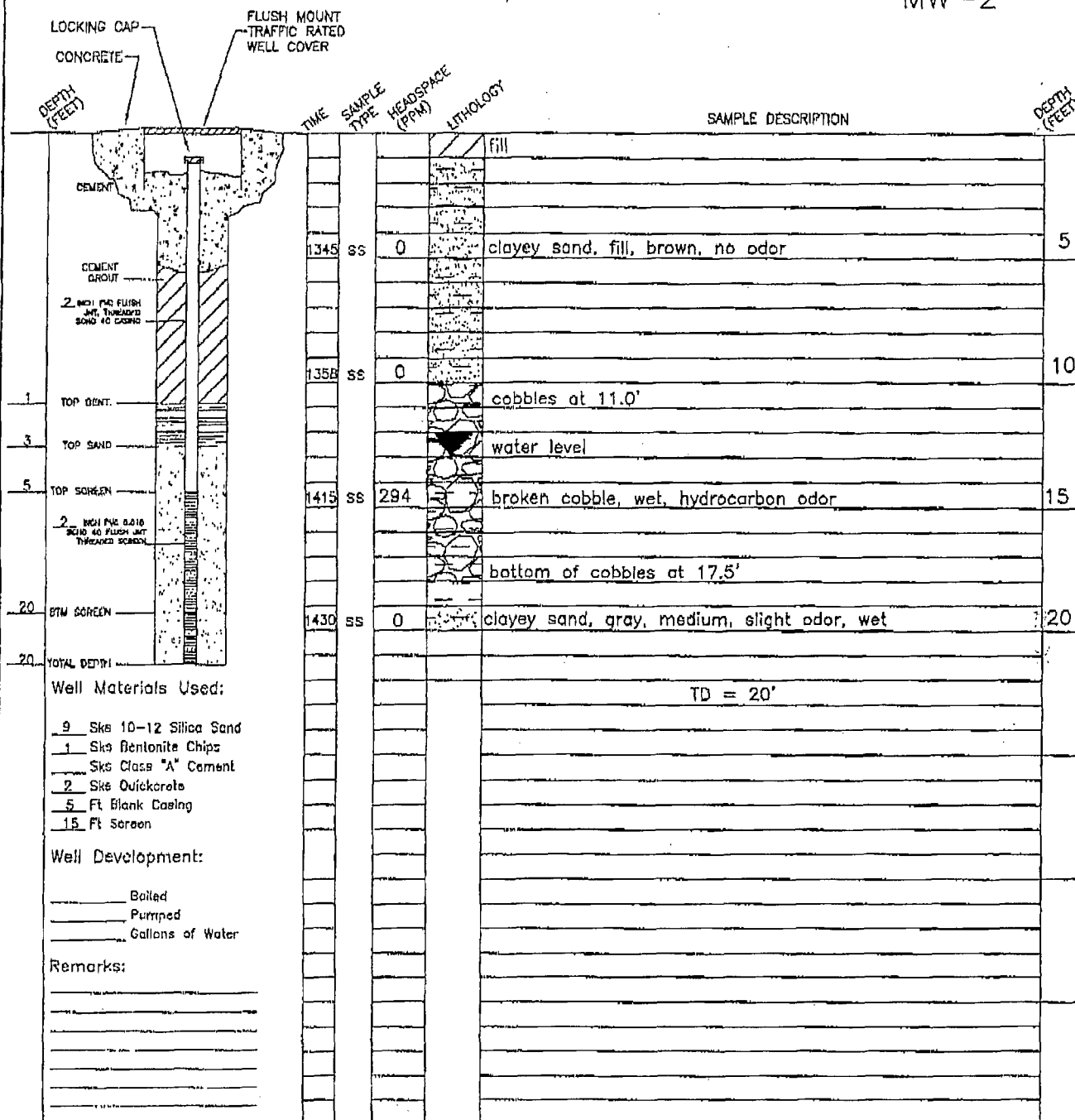
MW-1

REVISIONS
 BY _____ DATE _____
 BY _____ DATE _____
 Project No. 86052-189

DATE 11/23/04 DRAWN TCR PAGE 1
 SCALE NONE APPROVED CJC OF 1

BELOW GRADE WELL COMPLETION DIAGRAM / LITHOLOGY LOG

MW-2



DRILLER: KELLY PADILLA
 HELPER: Forrell, Chae/Jerold, Joe
 DRILLING COMPANY: ENVIROTECH
 DRILLING METHOD: HSA

BIT SIZE: 7 7/8
 TOTAL BORING DEPTH: 20'
 DATE STARTED: 11/17/04
 SAMPLER TYPE: SS

LOCATION: Fed Comp 15 Unit A
 ELEVATION: _____
 DATE COMPLETED 11/17/04
 GEOLOGIST: Jack Collins

Conoco Phillips
 Fed Comp 15 Unit A
 Farmington, New Mexico

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS
 5796 U.S. HIGHWAY 64
 FARMINGTON, NEW MEXICO 87401
 (505) 632-0815
 Bldgndlog.doc

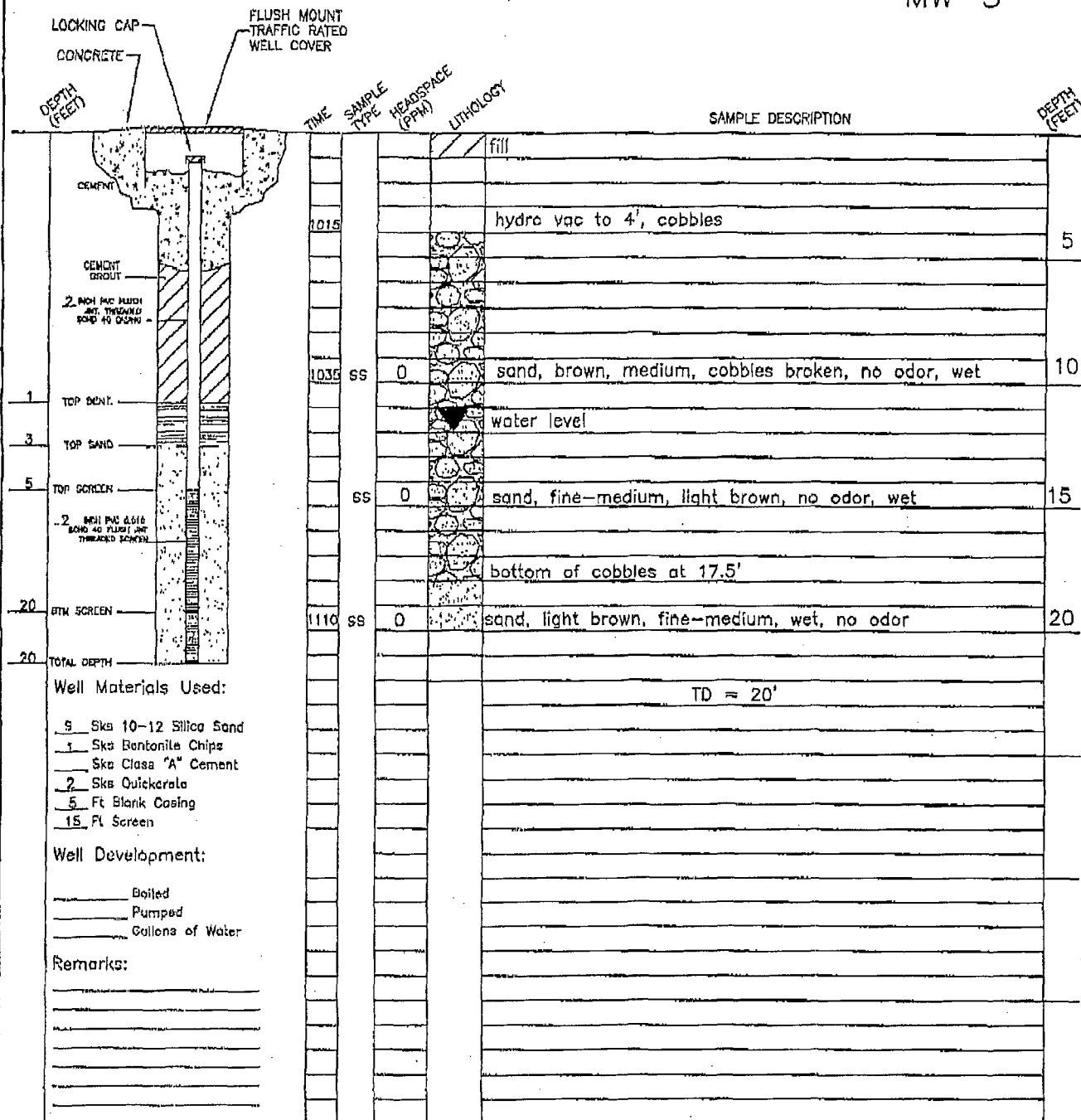
MW-2

REVISIONS
 BY DATE
 BY DATE
 Project No. 96052-189

DATE 11/23/04 DRAWN TCR PAGE 1
 SCALE NONE APPROVED CJC OF 1

BELOW GRADE WELL COMPLETION DIAGRAM / LITHOLOGY LOG

MW-3



DRILLER: KELLY PADILLA
 HELPER: Farrell Chee/Jerald Joe
 DRILLING COMPANY: ENVIROTECH
 DRILLING METHOD: HSA

BIT SIZE: 7 7/8
 TOTAL BORING DEPTH: 20'
 DATE STARTED: 11/22/04
 SAMPLER TYPE: SS

LOCATION: Fed Comp 15 Unit A
 ELEVATION: _____
 DATE COMPLETED 11/22/04
 GEOLOGIST: Tami Ross

Corona Phillips
 Fed Comp 15 Unit A
 Farmington, New Mexico

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS
 5796 U.S. HIGHWAY 64
 FARMINGTON, NEW MEXICO 87401
 (505) 632-0615
 B:\Drilling.dwg

MW-3

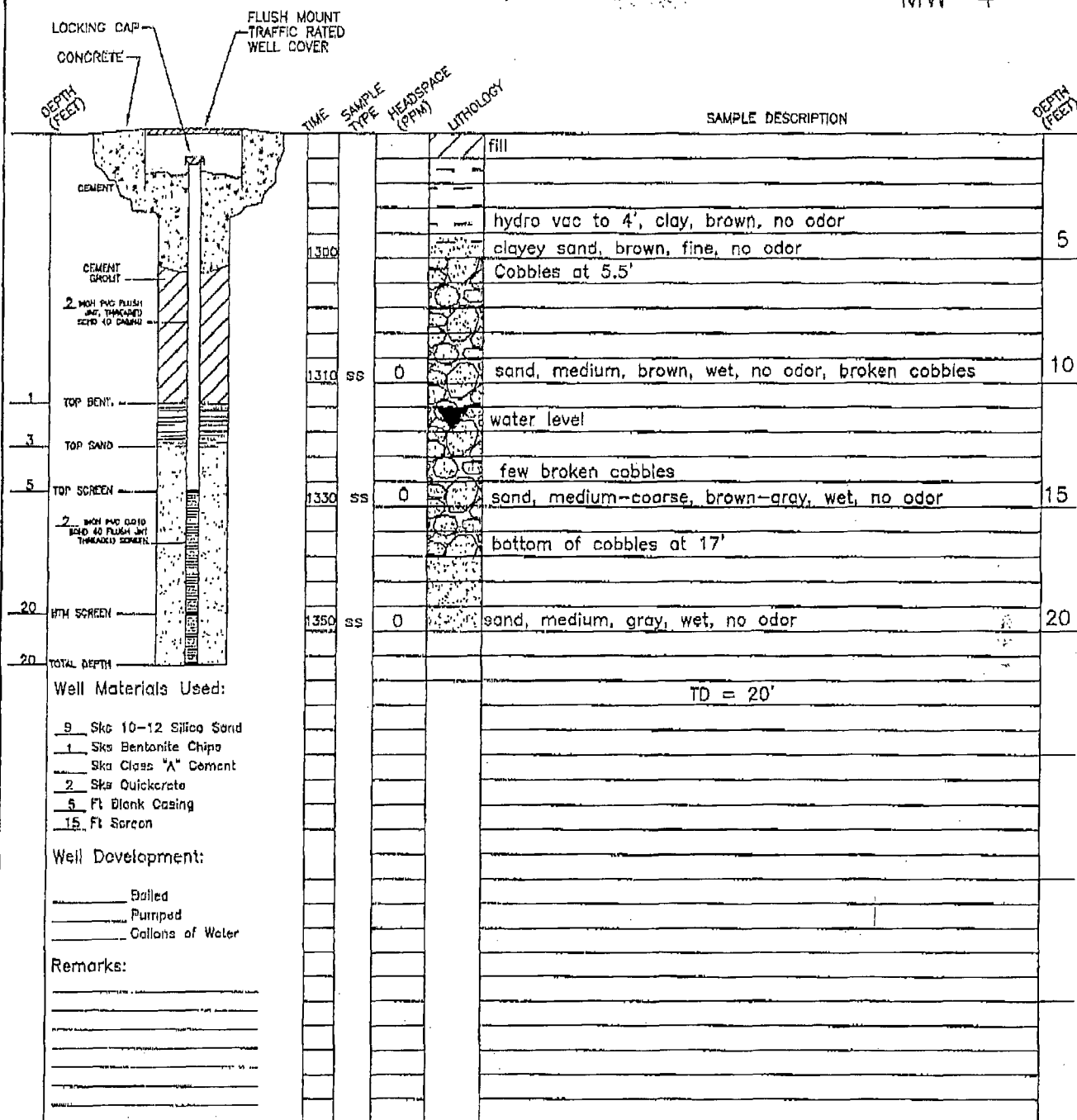
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 BY _____ DATE _____
 BY _____ DATE _____

Project No. 96052-189

DATE 11/23/04 DRAWN TCR PAGE 1
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BELOW GRADE WELL COMPLETION
DIAGRAM / LITHOLOGY LOG

MW-4



DRILLER: KELLY PADILLA

HELPER: Farrell Ghee/Jerald Jge

DRILLING COMPANY: ENVIROTECH

DRILLING METHOD: HSA

BIT SIZE: 7 7/8

TOTAL BORING DEPTH: 20'

DATE STARTED: 11/22/04

SAMPLER TYPE: SS

LOCATION: Fed Camp 15 Unit A

ELEVATION: _____

DATE COMPLETED 11/22/04

GEOLOGIST: Tami Ross

Conoco Phillips
Fed Camp 15 Unit A
Farmington, New Mexico

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS
5796 U.S. HIGHWAY 64
FARMINGTON, NEW MEXICO 87401
(505) 632-0615
BioCrding.dwg

MW-4

REVISIONS

BY _____ DATE _____

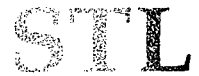
BY _____ DATE _____

Project No. 96052-189

DATE 11/23/04 DRAWN TCR PAGE 1

SCALE NONE APPROVED CJC OF 1

APPENDIX C
LABORATORY REPORT



STL Denver
4955 Yarrow Street
Arvada, CO 80002

Tel: 303 736 0100 Fax: 303 431 7171
www.stl-inc.com

ANALYTICAL REPORT

Federal Com #15
WO# 6845MAX001

Lot #: D5A190333

Mr. Clyde Yancey

Maxim Technologies
10601 Lomas NE
Suite 106
Albuquerque, NM 87112

Severn Trent Laboratories

A handwritten signature in cursive script, appearing to read "Donna Rydberg".

Donna Rydberg
Project Manager

January 27, 2005

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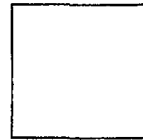
Standard Deliverables

Report Contents

Total Number of Pages

Standard Deliverables

The Cover Letter and the Report Cover page are considered integral parts of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.



- **Table of Contents**
- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Lot Sample Summary**
- **Analytical Results**
- **QC Data Association Summary**
- **Chain-of-Custody**

Case Narrative

D5A190333

The following report contains the analytical result for five samples and a Trip Blank submitted to STL Denver on January 19, 2005, according to documented sample acceptance procedures.

The results included in this report have been reviewed for compliance with STL's Quality Assurance/Quality Control (QA/QC) plan.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The test results shown in this report meet all requirements of NELAC. Any exceptions are noted below.

Supplemental QC Information

Sample Arrival and Receipt

The samples presented in this report were received at the laboratory at a temperature of 4.4°C. Sample containers were received in acceptable condition.

Method 8260B – GC/MS Volatiles

Samples D5A190333-003, -004 and -005 were analyzed at a dilution for Method 8260B to bring target compounds within the linear calibration range of the instrument. Reporting limits were raised accordingly.

No other anomalies were observed.

Method 8270C/PAH - GC/MS Semivolatiles

A MS/MSD were not requested and they could not be performed for Method 8270C due to insufficient sample volume. The associated LCS/LCSD and Method Blank were within control limits.

No other anomalies were observed.

Lot D5A190333 continued

General Chemistry – Method 300.0A Chloride

Sample D5A190333-001 was analyzed at a dilution due to high analyte concentrations. Reporting limits were raised accordingly.

The percent recoveries for chloride in the MS and MSD were estimated due to concentrations exceeding the instrument calibration range.

No other anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D5A190333

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
MW-1 01/18/05 11:20 001				
Chloride	85 Q	15	mg/L	MCAWW 300.0A
MW-4 01/18/05 12:15 002				
Benzene	2.8	1.0	ug/L	SW846 8260B
Chloride	37	3.0	mg/L	MCAWW 300.0A
MW-3 01/18/05 12:50 003				
Benzene	190	5.0	ug/L	SW846 8260B
Chloride	34	3.0	mg/L	MCAWW 300.0A
MW-2 01/18/05 13:30 004				
2-Methylnaphthalene	72	10	ug/L	SW846 8270C
1-Methylnaphthalene	34	10	ug/L	SW846 8270C
Naphthalene	51	10	ug/L	SW846 8270C
Benzene	1200	67	ug/L	SW846 8260B
Ethylbenzene	380	67	ug/L	SW846 8260B
Toluene	3300	67	ug/L	SW846 8260B
Xylenes (total)	3500	130	ug/L	SW846 8260B
Chloride	41	3.0	mg/L	MCAWW 300.0A
DUPLICATE 01/18/05 13:45 005				
Benzene	1300	67	ug/L	SW846 8260B
Ethylbenzene	410	67	ug/L	SW846 8260B
Toluene	3700	67	ug/L	SW846 8260B
Xylenes (total)	3800	130	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

D5A190333

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
Chloride	MCAWW 300.0A
Semivolatile Organic Compounds by GC/MS	SW846 8270C
Volatile Organics by GC/MS	SW846 8260B

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D5A190333

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
MCAWW 300.0A	Andrita Scofield	004409
SW846 8260B	Dan Appelhans	001008
SW846 8260B	Joann Peterson	011674
SW846 8270C	Barbara Sullivan	001128

References:

MCAWW	"Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.
SW846	"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D5A190333

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
G2WEN	001	MW-1	01/18/05	11:20
G2WE4	002	MW-4	01/18/05	12:15
G2WE5	003	MW-3	01/18/05	12:50
G2WE6	004	MW-2	01/18/05	13:30
G2WE7	005	DUPLICATE	01/18/05	13:45
G2WE8	006	TRIP BLANK	01/18/05	13:55

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

ConocoPhillips

Client Sample ID: MW-1

GC/MS Volatiles

Lot-Sample #....: D5A190333-001 Work Order #....: G2WEN1AA Matrix.....: WATER
 Date Sampled....: 01/18/05 11:20 Date Received...: 01/19/05
 Prep Date.....: 01/25/05 Analysis Date...: 01/25/05
 Prep Batch #....: 5026272 Analysis Time...: 18:19
 Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 118)
1,2-Dichloroethane-d4	95	(62 - 128)
4-Bromofluorobenzene	88	(78 - 118)
Toluene-d8	108	(77 - 117)

ConocoPhillips

Client Sample ID: MW-1

GC/MS Semivolatiles

Lot-Sample #...: D5A190333-001 Work Order #...: G2WEN1AC Matrix.....: WATER
 Date Sampled...: 01/18/05 11:20 Date Received...: 01/19/05
 Prep Date.....: 01/19/05 Analysis Date...: 01/23/05
 Prep Batch #...: 5019443 Analysis Time...: 16:55
 Dilution Factor: 1

Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo(a)anthracene	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Chrysene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
1-Methylnaphthalene	ND	10	ug/L
Naphthalene	ND	10	ug/L
Phenanthrene	ND	10	ug/L
Pyrene	ND	10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	78	(33 - 106)
Phenol-d5	82	(40 - 105)
Nitrobenzene-d5	79	(48 - 108)
2-Fluorobiphenyl	65	(39 - 93)
2,4,6-Tribromophenol	84	(31 - 122)
Terphenyl-d14	94	(20 - 123)

ConocoPhillips

Client Sample ID: MW-1

General Chemistry

Lot-Sample #...: D5A190333-001 Work Order #...: G2WEN Matrix.....: WATER
Date Sampled...: 01/18/05 11:20 Date Received...: 01/19/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Chloride	85 Q	15	mg/L	MCAWW 300.0A	01/24-01/25/05	5025235

Dilution Factor: 5 Analysis Time...: 00:06

NOTE(S) :

RL Reporting Limit

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

ConocoPhillips

Client Sample ID: MW-4

GC/MS Volatiles

Lot-Sample #....: D5A190333-002 Work Order #....: G2WE41AA Matrix.....: WATER
 Date Sampled....: 01/18/05 12:15 Date Received...: 01/19/05
 Prep Date.....: 01/25/05 Analysis Date...: 01/25/05
 Prep Batch #....: 5026272 Analysis Time...: 18:44
 Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	2.8	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 118)
1,2-Dichloroethane-d4	94	(62 - 128)
4-Bromofluorobenzene	88	(78 - 118)
Toluene-d8	103	(77 - 117)

ConocoPhillips

Client Sample ID: MW-4

GC/MS Semivolatiles

Lot-Sample #....: D5A190333-002 Work Order #....: G2WE41AC Matrix.....: WATER
 Date Sampled....: 01/18/05 12:15 Date Received...: 01/19/05
 Prep Date.....: 01/19/05 Analysis Date...: 01/23/05
 Prep Batch #....: 5019443 Analysis Time...: 17:18
 Dilution Factor: 1
 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo(a)anthracene	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Chrysene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
1-Methylnaphthalene	ND	10	ug/L
Naphthalene	ND	10	ug/L
Phenanthrene	ND	10	ug/L
Pyrene	ND	10	ug/L

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
2-Fluorophenol	73	(33 - 106)
Phenol-d5	76	(40 - 105)
Nitrobenzene-d5	73	(48 - 108)
2-Fluorobiphenyl	62	(39 - 93)
2,4,6-Tribromophenol	73	(31 - 122)
Terphenyl-d14	76	(20 - 123)

ConocoPhillips

Client Sample ID: MW-4

General Chemistry

Lot-Sample #...: D5A190333-002 Work Order #...: G2WE4 Matrix.....: WATER
Date Sampled...: 01/18/05 12:15 Date Received...: 01/19/05

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Chloride	37	3.0	mg/L	MCAWW 300.0A	01/24-01/25/05	5025235

Dilution Factor: 1 Analysis Time...: 01:12

ConocoPhillips

Client Sample ID: MW-3

GC/MS Volatiles

Lot-Sample #....: D5A190333-003 Work Order #....: G2WE51AA Matrix.....: WATER
Date Sampled....: 01/18/05 12:50 Date Received...: 01/19/05
Prep Date.....: 01/26/05 Analysis Date...: 01/26/05
Prep Batch #....: 5027118 Analysis Time...: 12:02
Dilution Factor: 5
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
Benzene	190	5.0	ug/L
Ethylbenzene	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
Xylenes (total)	ND	10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY	
		LIMITS	
Dibromofluoromethane	103	(73 - 118)	
1,2-Dichloroethane-d4	114	(62 - 128)	
4-Bromofluorobenzene	97	(78 - 118)	
Toluene-d8	101	(77 - 117)	

ConocoPhillips

Client Sample ID: MW-3

GC/MS Semivolatiles

Lot-Sample #....: D5A190333-003 Work Order #....: G2WE51AC Matrix.....: WATER
 Date Sampled....: 01/18/05 12:50 Date Received...: 01/19/05
 Prep Date.....: 01/19/05 Analysis Date...: 01/23/05
 Prep Batch #....: 5019443 Analysis Time...: 17:41
 Dilution Factor: 1

Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo(a)anthracene	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Chrysene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
2-Methylnaphthalene	ND	10	ug/L
1-Methylnaphthalene	ND	10	ug/L
Naphthalene	ND	10	ug/L
Phenanthrene	ND	10	ug/L
Pyrene	ND	10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	65	(33 - 106)
Phenol-d5	69	(40 - 105)
Nitrobenzene-d5	73	(48 - 108)
2-Fluorobiphenyl	58	(39 - 93)
2,4,6-Tribromophenol	60	(31 - 122)
Terphenyl-d14	74	(20 - 123)

ConocoPhillips

Client Sample ID: MW-3

General Chemistry

Lot-Sample #...: D5A190333-003

Work Order #...: G2WE5

Matrix.....: WATER

Date Sampled...: 01/18/05 12:50

Date Received...: 01/19/05

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chloride	34	3.0	mg/L	MCAWW 300.0A	01/24-01/25/05	5025235
		Dilution Factor: 1		Analysis Time...: 02:02		

ConocoPhillips

Client Sample ID: MW-2

GC/MS Volatiles

Lot-Sample #....: D5A190333-004 Work Order #....: G2WE61AA Matrix.....: WATER
Date Sampled....: 01/18/05 13:30 Date Received...: 01/19/05
Prep Date.....: 01/25/05 Analysis Date...: 01/25/05
Prep Batch #....: 5026272 Analysis Time...: 19:35
Dilution Factor: 66.67
Method.....: SW846 8260B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>
Benzene	1200	67	ug/L
Ethylbenzene	380	67	ug/L
Toluene	3300	67	ug/L
Xylenes (total)	3500	130	ug/L

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Dibromofluoromethane	90	(73 - 118)
1,2-Dichloroethane-d4	90	(62 - 128)
4-Bromofluorobenzene	89	(78 - 118)
Toluene-d8	105	(77 - 117)

ConocoPhillips

Client Sample ID: MW-2

GC/MS Semivolatiles

Lot-Sample #....: D5A190333-004 Work Order #....: G2WE61AC Matrix.....: WATER
 Date Sampled....: 01/18/05 13:30 Date Received...: 01/19/05
 Prep Date.....: 01/19/05 Analysis Date...: 01/23/05
 Prep Batch #....: 5019443 Analysis Time...: 18:04
 Dilution Factor: 1
 Method.....: SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acenaphthene	ND	10	ug/L
Acenaphthylene	ND	10	ug/L
Anthracene	ND	10	ug/L
Benzo(a)anthracene	ND	10	ug/L
Benzo(b)fluoranthene	ND	10	ug/L
Benzo(k)fluoranthene	ND	10	ug/L
Benzo(ghi)perylene	ND	10	ug/L
Benzo(a)pyrene	ND	10	ug/L
Chrysene	ND	10	ug/L
Dibenz(a,h)anthracene	ND	10	ug/L
Fluoranthene	ND	10	ug/L
Fluorene	ND	10	ug/L
Indeno(1,2,3-cd)pyrene	ND	10	ug/L
2-Methylnaphthalene	72	10	ug/L
1-Methylnaphthalene	34	10	ug/L
Naphthalene	51	10	ug/L
Phenanthrene	ND	10	ug/L
Pyrene	ND	10	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	56	(33 - 106)
Phenol-d5	82	(40 - 105)
Nitrobenzene-d5	77	(48 - 108)
2-Fluorobiphenyl	74	(39 - 93)
2,4,6-Tribromophenol	85	(31 - 122)
Terphenyl-d14	76	(20 - 123)

ConocoPhillips

Client Sample ID: MW-2

General Chemistry

Lot-Sample #...: D5A190333-004
Date Sampled...: 01/18/05 13:30

Work Order #...: G2WE6
Date Received...: 01/19/05

Matrix.....: WATER

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Chloride	41	3.0	mg/L	MCAWW 300.0A	01/24-01/25/05	5025235

Dilution Factor: 1 Analysis Time...: 02:51

ConocoPhillips

Client Sample ID: DUPLICATE

GC/MS Volatiles

Lot-Sample #...: D5A190333-005 Work Order #...: G2WE71AA Matrix.....: WATER
Date Sampled...: 01/18/05 13:45 Date Received...: 01/19/05
Prep Date.....: 01/25/05 Analysis Date...: 01/25/05
Prep Batch #...: 5026272 Analysis Time...: 20:01
Dilution Factor: 66.67

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	1300	67	ug/L
Ethylbenzene	410	67	ug/L
Toluene	3700	67	ug/L
Xylenes (total)	3800	130	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	93	(73 - 118)
1,2-Dichloroethane-d4	93	(62 - 128)
4-Bromofluorobenzene	90	(78 - 118)
Toluene-d8	98	(77 - 117)

ConocoPhillips

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: D5A190333-006 Work Order #...: G2WE81AA Matrix.....: WATER
Date Sampled...: 01/18/05 13:55 Date Received...: 01/19/05
Prep Date.....: 01/25/05 Analysis Date...: 01/25/05
Prep Batch #...: 5026272 Analysis Time...: 20:27
Dilution Factor: 1
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(73 - 118)
1,2-Dichloroethane-d4	93	(62 - 128)
4-Bromofluorobenzene	89	(78 - 118)
Toluene-d8	102	(77 - 117)

QC DATA ASSOCIATION SUMMARY

D5A190333

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	MCAWW 300.0A		5025235	5025153
	WATER	SW846 8260B		5026272	5026165
	WATER	SW846 8270C		5019443	
002	WATER	MCAWW 300.0A		5025235	5025153
	WATER	SW846 8260B		5026272	5026165
	WATER	SW846 8270C		5019443	
003	WATER	MCAWW 300.0A		5025235	5025153
	WATER	SW846 8260B		5027118	5027060
	WATER	SW846 8270C		5019443	
004	WATER	MCAWW 300.0A		5025235	5025153
	WATER	SW846 8260B		5026272	5026165
	WATER	SW846 8270C		5019443	
005	WATER	SW846 8260B		5026272	5026165
006	WATER	SW846 8260B		5026272	5026165

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #....: D5A190333
 MB Lot-Sample #: D5A260000-272

Work Order #....: G28K61AA

Matrix.....: WATER

Analysis Date...: 01/25/05
 Dilution Factor: 1

Prep Date.....: 01/25/05

Analysis Time...: 13:30

Prep Batch #....: 5026272

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	METHOD
Benzene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Dibromofluoromethane	94	(73 - 118)
1,2-Dichloroethane-d4	94	(62 - 128)
4-Bromofluorobenzene	91	(78 - 118)
Toluene-d8	104	(77 - 117)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #....: D5A190333 Work Order #....: G28K61AC Matrix.....: WATER
 LCS Lot-Sample#: D5A260000-272
 Prep Date.....: 01/25/05 Analysis Date...: 01/25/05
 Prep Batch #....: 5026272 Analysis Time...: 13:58
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
1,1-Dichloroethene	113	(66 - 132)	SW846 8260B
Chlorobenzene	101	(78 - 118)	SW846 8260B
Benzene	113	(75 - 120)	SW846 8260B
Trichloroethene	102	(79 - 122)	SW846 8260B
Toluene	116	(78 - 118)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	90	(73 - 118)
1,2-Dichloroethane-d4	92	(62 - 128)
4-Bromofluorobenzene	87	(78 - 118)
Toluene-d8	102	(77 - 117)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #....: D5A190333 Work Order #....: G28K61AC Matrix.....: WATER
 LCS Lot-Sample#: D5A260000-272
 Prep Date.....: 01/25/05 Analysis Date...: 01/25/05
 Prep Batch #...: 5026272 Analysis Time...: 13:58
 Dilution Factor: 1

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>METHOD</u>
1,1-Dichloroethene	10.0	11.3	ug/L	113	SW846 8260B
Chlorobenzene	10.0	10.1	ug/L	101	SW846 8260B
Benzene	10.0	11.3	ug/L	113	SW846 8260B
Trichloroethene	10.0	10.2	ug/L	102	SW846 8260B
Toluene	10.0	11.6	ug/L	116	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Dibromofluoromethane	90	(73 - 118)
1,2-Dichloroethane-d4	92	(62 - 128)
4-Bromofluorobenzene	87	(78 - 118)
Toluene-d8	102	(77 - 117)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: D5A190333 Work Order #...: G22111A5-MS Matrix.....: WATER
 MS Lot-Sample #: D5A210359-005 G22111A6-MSD
 Date Sampled...: 01/20/05 09:05 Date Received...: 01/21/05
 Prep Date.....: 01/25/05 Analysis Date...: 01/25/05
 Prep Batch #...: 5026272 Analysis Time...: 14:57
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	110	(66 - 132)			SW846 8260B
	111	(66 - 132)	0.34	(0-26)	SW846 8260B
Chlorobenzene	104	(78 - 118)			SW846 8260B
	105	(78 - 118)	1.4	(0-20)	SW846 8260B
Benzene	106	(75 - 120)			SW846 8260B
	111	(75 - 120)	4.5	(0-21)	SW846 8260B
Trichloroethene	98	(79 - 122)			SW846 8260B
	101	(79 - 122)	3.4	(0-23)	SW846 8260B
Toluene	112	(78 - 118)			SW846 8260B
	113	(78 - 118)	0.43	(0-22)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	90	(73 - 118)
	92	(73 - 118)
1,2-Dichloroethane-d4	88	(62 - 128)
	90	(62 - 128)
4-Bromofluorobenzene	89	(78 - 118)
	86	(78 - 118)
Toluene-d8	106	(77 - 117)
	103	(77 - 117)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: D5A190333 Work Order #...: G22111A5-MS Matrix.....: WATER
 MS Lot-Sample #: D5A210359-005 G22111A6-MSD
 Date Sampled...: 01/20/05 09:05 Date Received...: 01/21/05
 Prep Date.....: 01/25/05 Analysis Date...: 01/25/05
 Prep Batch #...: 5026272 Analysis Time...: 14:57
 Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	ND	10.0	11.0	ug/L	110		SW846 8260B
	ND	10.0	11.1	ug/L	111	0.34	SW846 8260B
Chlorobenzene	ND	10.0	10.4	ug/L	104		SW846 8260B
	ND	10.0	10.5	ug/L	105	1.4	SW846 8260B
Benzene	ND	10.0	10.8	ug/L	106		SW846 8260B
	ND	10.0	11.3	ug/L	111	4.5	SW846 8260B
Trichloroethene	ND	10.0	9.99	ug/L	98		SW846 8260B
	ND	10.0	10.3	ug/L	101	3.4	SW846 8260B
Toluene	ND	10.0	11.5	ug/L	112		SW846 8260B
	ND	10.0	11.5	ug/L	113	0.43	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	90	(73 - 118)
	92	(73 - 118)
1,2-Dichloroethane-d4	88	(62 - 128)
	90	(62 - 128)
4-Bromofluorobenzene	89	(78 - 118)
	86	(78 - 118)
Toluene-d8	106	(77 - 117)
	103	(77 - 117)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: D5A190333
 MB Lot-Sample #: D5A270000-118

Work Order #...: G29071AA

Matrix.....: WATER

Analysis Date...: 01/26/05
 Dilution Factor: 1

Prep Date.....: 01/26/05

Analysis Time...: 11:12

Prep Batch #...: 5027118

PARAMETER	RESULT	REPORTING			METHOD
		LIMIT	UNITS		
Benzene	ND	1.0	ug/L		SW846 8260B
Ethylbenzene	ND	1.0	ug/L		SW846 8260B
Toluene	ND	1.0	ug/L		SW846 8260B
Xylenes (total)	ND	2.0	ug/L		SW846 8260B

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Dibromofluoromethane	107	(73 - 118)
1,2-Dichloroethane-d4	120	(62 - 128)
4-Bromofluorobenzene	104	(78 - 118)
Toluene-d8	107	(77 - 117)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: D5A190333 Work Order #...: G29071AC-LCS Matrix.....: WATER
 LCS Lot-Sample#: D5A270000-118 G29071AD-LCSD
 Prep Date.....: 01/26/05 Analysis Date...: 01/26/05
 Prep Batch #...: 5027118 Analysis Time...: 10:25
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	100	(66 - 132)			SW846 8260B
	97	(66 - 132)	3.8	(0-26)	SW846 8260B
Chlorobenzene	97	(78 - 118)			SW846 8260B
	99	(78 - 118)	1.2	(0-20)	SW846 8260B
Benzene	102	(75 - 120)			SW846 8260B
	100	(75 - 120)	1.2	(0-21)	SW846 8260B
Trichloroethene	100	(79 - 122)			SW846 8260B
	99	(79 - 122)	0.97	(0-23)	SW846 8260B
Toluene	96	(78 - 118)			SW846 8260B
	96	(78 - 118)	0.060	(0-22)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 118)
	104	(73 - 118)
1,2-Dichloroethane-d4	115	(62 - 128)
	114	(62 - 128)
4-Bromofluorobenzene	100	(78 - 118)
	99	(78 - 118)
Toluene-d8	102	(77 - 117)
	102	(77 - 117)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: D5A190333 Work Order #...: G29071AC-LCS Matrix.....: WATER
 LCS Lot-Sample#: D5A270000-118 G29071AD-LCSD
 Prep Date.....: 01/26/05 Analysis Date...: 01/26/05
 Prep Batch #...: 5027118 Analysis Time...: 10:25
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	10.0	10.0	ug/L	100		SW846 8260B
	10.0	9.65	ug/L	97	3.8	SW846 8260B
Chlorobenzene	10.0	9.75	ug/L	97		SW846 8260B
	10.0	9.86	ug/L	99	1.2	SW846 8260B
Benzene	10.0	10.2	ug/L	102		SW846 8260B
	10.0	10.0	ug/L	100	1.2	SW846 8260B
Trichloroethene	10.0	9.95	ug/L	100		SW846 8260B
	10.0	9.85	ug/L	99	0.97	SW846 8260B
Toluene	10.0	9.58	ug/L	96		SW846 8260B
	10.0	9.57	ug/L	96	0.060	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 118)
	104	(73 - 118)
1,2-Dichloroethane-d4	115	(62 - 128)
	114	(62 - 128)
4-Bromofluorobenzene	100	(78 - 118)
	99	(78 - 118)
Toluene-d8	102	(77 - 117)
	102	(77 - 117)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: D5A190333 Work Order #...: G2WE51AE-MS Matrix.....: WATER
 MS Lot-Sample #: D5A190333-003 G2WE51AF-MSD
 Date Sampled...: 01/18/05 12:50 Date Received...: 01/19/05
 Prep Date.....: 01/26/05 Analysis Date...: 01/26/05
 Prep Batch #...: 5027118 Analysis Time...: 15:28
 Dilution Factor: 5

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	100	(66 - 132)			SW846 8260B
	101	(66 - 132)	0.96	(0-26)	SW846 8260B
Chlorobenzene	104	(78 - 118)			SW846 8260B
	108	(78 - 118)	3.9	(0-20)	SW846 8260B
Benzene	104	(75 - 120)			SW846 8260B
	114	(75 - 120)	2.1	(0-21)	SW846 8260B
Trichloroethene	105	(79 - 122)			SW846 8260B
	109	(79 - 122)	4.2	(0-23)	SW846 8260B
Toluene	104	(78 - 118)			SW846 8260B
	108	(78 - 118)	3.0	(0-22)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 118)
	104	(73 - 118)
1,2-Dichloroethane-d4	114	(62 - 128)
	114	(62 - 128)
4-Bromofluorobenzene	97	(78 - 118)
	102	(78 - 118)
Toluene-d8	102	(77 - 117)
	103	(77 - 117)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: D5A190333 Work Order #...: G2WE51AE-MS Matrix.....: WATER
 MS Lot-Sample #: D5A190333-003 G2WE51AF-MSD
 Date Sampled...: 01/18/05 12:50 Date Received...: 01/19/05
 Prep Date.....: 01/26/05 Analysis Date...: 01/26/05
 Prep Batch #...: 5027118 Analysis Time...: 15:28
 Dilution Factor: 5

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1-Dichloroethene	ND	50.0	50.1	ug/L	100		SW846 8260B
	ND	50.0	50.6	ug/L	101	0.96	SW846 8260B
Chlorobenzene	ND	50.0	52.1	ug/L	104		SW846 8260B
	ND	50.0	54.1	ug/L	108	3.9	SW846 8260B
Benzene	190	50.0	246	ug/L	104		SW846 8260B
	190	50.0	251	ug/L	114	2.1	SW846 8260B
Trichloroethene	ND	50.0	52.5	ug/L	105		SW846 8260B
	ND	50.0	54.7	ug/L	109	4.2	SW846 8260B
Toluene	ND	50.0	53.2	ug/L	104		SW846 8260B
	ND	50.0	54.8	ug/L	108	3.0	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 118)
	104	(73 - 118)
1,2-Dichloroethane-d4	114	(62 - 128)
	114	(62 - 128)
4-Bromofluorobenzene	97	(78 - 118)
	102	(78 - 118)
Toluene-d8	102	(77 - 117)
	103	(77 - 117)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: D5A190333
MB Lot-Sample #: D5A190000-443

Work Order #...: G2WK01AA

Matrix.....: WATER

Analysis Date...: 01/23/05
Dilution Factor: 1

Prep Date.....: 01/19/05

Analysis Time...: 14:37

Prep Batch #...: 5019443

PARAMETER	RESULT	REPORTING			METHOD
		LIMIT	UNITS		
Acenaphthene	ND	10	ug/L		SW846 8270C
Acenaphthylene	ND	10	ug/L		SW846 8270C
Anthracene	ND	10	ug/L		SW846 8270C
Benzo (a) anthracene	ND	10	ug/L		SW846 8270C
Benzo (b) fluoranthene	ND	10	ug/L		SW846 8270C
Benzo (k) fluoranthene	ND	10	ug/L		SW846 8270C
Benzo (ghi) perylene	ND	10	ug/L		SW846 8270C
Benzo (a) pyrene	ND	10	ug/L		SW846 8270C
Chrysene	ND	10	ug/L		SW846 8270C
Dibenz (a, h) anthracene	ND	10	ug/L		SW846 8270C
Fluoranthene	ND	10	ug/L		SW846 8270C
Fluorene	ND	10	ug/L		SW846 8270C
Indeno (1, 2, 3-cd) pyrene	ND	10	ug/L		SW846 8270C
2-Methylnaphthalene	ND	10	ug/L		SW846 8270C
1-Methylnaphthalene	ND	10	ug/L		SW846 8270C
Naphthalene	ND	10	ug/L		SW846 8270C
Phenanthrene	ND	10	ug/L		SW846 8270C
Pyrene	ND	10	ug/L		SW846 8270C

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
2-Fluorophenol	80	(33 - 106)
Phenol-d5	83	(40 - 105)
Nitrobenzene-d5	81	(48 - 108)
2-Fluorobiphenyl	64	(39 - 93)
2,4,6-Tribromophenol	76	(31 - 122)
Terphenyl-d14	99	(20 - 123)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: D5A190333 Work Order #...: G2WK01AC-LCS Matrix.....: WATER
 LCS Lot-Sample#: D5A190000-443 G2WK01AD-LCSD
 Prep Date.....: 01/19/05 Analysis Date...: 01/23/05
 Prep Batch #...: 5019443 Analysis Time...: 15:00
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
4-Chloro-3-methylphenol	72	(59 - 106)			SW846 8270C
	76	(59 - 106)	4.2	(0-28)	SW846 8270C
2-Chlorophenol	72	(59 - 103)			SW846 8270C
	76	(59 - 103)	5.5	(0-38)	SW846 8270C
Acenaphthene	69	(52 - 102)			SW846 8270C
	73	(52 - 102)	6.1	(0-28)	SW846 8270C
1,4-Dichlorobenzene	54	(43 - 91)			SW846 8270C
	55	(43 - 91)	1.7	(0-50)	SW846 8270C
2,4-Dinitrotoluene	72	(50 - 111)			SW846 8270C
	72	(50 - 111)	0.72	(0-30)	SW846 8270C
4-Nitrophenol	63	(38 - 116)			SW846 8270C
	64	(38 - 116)	2.0	(0-53)	SW846 8270C
N-Nitrosodi-n-propyl- amine	71	(51 - 99)			SW846 8270C
	75	(51 - 99)	6.1	(0-27)	SW846 8270C
Pentachlorophenol	61	(41 - 113)			SW846 8270C
	64	(41 - 113)	5.1	(0-50)	SW846 8270C
Phenol	72	(57 - 103)			SW846 8270C
	75	(57 - 103)	4.2	(0-36)	SW846 8270C
1,2,4-Trichloro- benzene	57	(42 - 94)			SW846 8270C
	60	(42 - 94)	6.2	(0-44)	SW846 8270C
Pyrene	87	(47 - 112)			SW846 8270C
	89	(47 - 112)	1.8	(0-33)	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	73	(55 - 95)
	76	(55 - 95)
Phenol-d5	77	(58 - 97)
	80	(58 - 97)
Nitrobenzene-d5	74	(55 - 100)
	78	(55 - 100)
2-Fluorobiphenyl	54	(40 - 93)
	52	(40 - 93)
2,4,6-Tribromophenol	72	(51 - 107)
	75	(51 - 107)
Terphenyl-d14	95	(49 - 111)

(Continued on next page)

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: D5A190333 Work Order #...: G2WK01AC-LCS Matrix.....: WATER
LCS Lot-Sample#: D5A190000-443 G2WK01AD-LCSD

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
	95	(49 - 111)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #....: D5A190333 Work Order #....: G2WK01AC-LCS Matrix.....: WATER
 LCS Lot-Sample#: D5A190000-443 G2WK01AD-LCSD
 Prep Date.....: 01/19/05 Analysis Date...: 01/23/05
 Prep Batch #....: 5019443 Analysis Time...: 15:00
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
4-Chloro-3-methylphenol	150	109	ug/L	72		SW846 8270C
	150	113	ug/L	76	4.2	SW846 8270C
2-Chlorophenol	150	108	ug/L	72		SW846 8270C
	150	114	ug/L	76	5.5	SW846 8270C
Acenaphthene	100	68.8	ug/L	69		SW846 8270C
	100	73.2	ug/L	73	6.1	SW846 8270C
1,4-Dichlorobenzene	100	54.4	ug/L	54		SW846 8270C
	100	55.4	ug/L	55	1.7	SW846 8270C
2,4-Dinitrotoluene	100	72.4	ug/L	72		SW846 8270C
	100	71.8	ug/L	72	0.72	SW846 8270C
4-Nitrophenol	150	94.3	ug/L	63		SW846 8270C
	150	96.2	ug/L	64	2.0	SW846 8270C
N-Nitrosodi-n-propyl- amine	100	70.7	ug/L	71		SW846 8270C
	100	75.2	ug/L	75	6.1	SW846 8270C
Pentachlorophenol	150	91.1	ug/L	61		SW846 8270C
	150	95.9	ug/L	64	5.1	SW846 8270C
Phenol	150	108	ug/L	72		SW846 8270C
	150	113	ug/L	75	4.2	SW846 8270C
1,2,4-Trichloro- benzene	100	56.7	ug/L	57		SW846 8270C
	100	60.3	ug/L	60	6.2	SW846 8270C
Pyrene	100	87.1	ug/L	87		SW846 8270C
	100	88.7	ug/L	89	1.8	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	73	(55 - 95)
	76	(55 - 95)
Phenol-d5	77	(58 - 97)
	80	(58 - 97)
Nitrobenzene-d5	74	(55 - 100)
	78	(55 - 100)
2-Fluorobiphenyl	54	(40 - 93)
	52	(40 - 93)
2,4,6-Tribromophenol	72	(51 - 107)
	75	(51 - 107)
Terphenyl-d14	95	(49 - 111)

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: D5A190333 Work Order #...: G2WK01AC-LCS Matrix.....: WATER
LCS Lot-Sample#: D5A190000-443 G2WK01AD-LCSD

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
	95	(49 - 111)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

General Chemistry

Client Lot #...: D5A190333

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Chloride	ND	Work Order #: G26QT1AA		MB Lot-Sample #:	D5A250000-235	
		3.0	mg/L	MCAWW 300.0A	01/24/05	5025235
		Dilution Factor: 1				
		Analysis Time...: 15:51				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #...: D5A190333

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Chloride		WO#:G26QT1AC-LCS/G26QT1AD-LCSD		LCS Lot-Sample#: D5A250000-235		
	102	(90 - 110)		MCAWW 300.0A	01/24/05	5025235
	102	(90 - 110)	0.09 (0-10)	MCAWW 300.0A	01/24/05	5025235
		Dilution Factor: 1		Analysis Time...: 15:18		

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Lot-Sample #...: D5A190333

Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Chloride						WO#:G26QT1AC-LCS/G26QT1AD-LCSD LCS Lot-Sample#: D5A250000-235		
	20.0	20.5	mg/L	102		MCAWW 300.0A	01/24/05	5025235
	20.0	20.5	mg/L	102	0.09	MCAWW 300.0A	01/24/05	5025235
				Dilution Factor: 1		Analysis Time...: 15:18		

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #....: D5A190333

Matrix.....: WATER

Date Sampled....: 01/17/05 06:00 Date Received...: 01/17/05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Chloride			WO#: G2P9G1CH-MS/G2P9G1CJ-MSD MS Lot-Sample #: D5A170175-001				
104 I	(80 - 120)				MCAWW 300.0A	01/24/05	5025235
104 I	(80 - 120)	0.29 (0-20)			MCAWW 300.0A	01/24/05	5025235
			Dilution Factor: 1				
			Analysis Time...: 19:26				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

1 Estimated result. Result concentration exceeds the calibration range.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: D5A190333

Matrix.....: WATER

Date Sampled...: 01/17/05 06:00 Date Received...: 01/17/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Chloride			WO#: G2P9G1CH-MS/G2P9G1CJ-MSD				MS Lot-Sample #:	D5A170175-001	
	1500	1250	2820 I	mg/L	104		MCAWW 300.0A	01/24/05	5025235
	1500	1250	2830 I	mg/L	104	0.29	MCAWW 300.0A	01/24/05	5025235
			Dilution Factor: 1						
			Analysis Time...: 19:26						

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

I Estimated result. Result concentration exceeds the calibration range.

Chain of Custody Record

STL-4124 (0901)

Client	Maxima Technologies	Project Manager		Date	1-13-05	Chain of Custody Number	316571
Address	16661 Longs Ave, Suite 166	Telephone Number (Area Code)/Fax Number		Lab Number		Page	1 of 1

Page 1 of 1

City	State	Zip Code	Site Contact	Lab Contact:	Analysis (Attach list if more space is needed)
Albuquerque	NM	87112	Kelley Henderson	Donna Rydberg	
Project Name and Location (State)			Carrier/Waybill Number		

Contract/Purchase Order/Quote No.

Special Instructions/
Conditions of Receipt[illegible]

Possible Hazard Identification

(A fee may be assessed if samples are retained longer than 1 month)

QC Requirements (Specify)

<input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 7 Days <input type="checkbox"/> 14 Days <input type="checkbox"/> 21 Days <input type="checkbox"/> Other _____	
1. Relinquished By	Date 1-18-05 Time 16:00
2. Relinquished By	Date 1-18-05 Time 16:00
3. Relinquished By	Date 1-18-05 Time 16:00

Comments

DISTRIBUTION: WHITE - Returned to Client with Report: CANARY - Stays with the Sample: PINK - Field Copy

STL Denver

Sample Receiving Checklist

Lot #: DSA190333

Date/Time Received: 11/26/05 0930

Company Name & Sampling Site: MAXIM TECHNOLOGIES

PM to Complete This Section: Yes

Residual chlorine check required: ☐

No

☒

Quarantined: ☐

Yes

☐

No

☒

Quote #: 24203

Special Instructions:

Time Zone:

• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s):

Temperatures (°C): 4.4

N/A Yes No

- Initials CS
- ☐ ☒ ☐ 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
 - ☒ ☐ ☐ 2. Chain of custody present? If no, document on CUR.
 - ☐ ☒ ☐ 3. Bottles broken and/or are leaking? If yes, document on CUR.
 - ☐ ☒ ☐ 4. Multiphasic samples obvious? If yes, document on CUR.
 - ☒ ☐ ☐ 5. Proper container & preservatives used? (ref. Attachment D of SOP# DEN-QA-0003) If no, document on CUR.
 - ☒ ☐ ☐ 6. pH of all samples checked and meet requirements? If no, document on CUR.
 - ☒ ☐ ☐ 7. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DEN-QA-0003) If no, document on CUR, and contact PM before proceeding.
 - ☒ ☐ ☐ 8. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
 - ☐ ☒ ☐ 9. Were VOA samples without headspace? If no, document on CUR.
 - ☐ ☒ ☐ 10. Were VOA vials preserved? Preservative ☒ HCl ☐ 4°C ☐ Sodium Thiosulfate ☐ Ascorbic Acid
 - ☐ ☒ ☐ 11. Did samples require preservation with sodium thiosulfate?
 - ☐ ☐ ☐ 12. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
 - ☐ ☐ ☐ 13. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
 - ☐ ☐ ☐ 14. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
 - ☐ ☐ ☐ 15. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
 - ☐ ☐ ☐ 16. Are analyses with short holding times requested?
 - ☐ ☐ ☐ 17. Was a quick Turn Around (TAT) requested?

STL Denver
Sample Receiving Checklist

Lot # ISA 190333

Login Checks:

Initials

N/A Yes No

DS

- ☒ ☐ 18. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DEN-QA-0003) If no, document on CUR, and contact PM before proceeding.
- ☒ ☐ 19. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- ☐ ☐ 20. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- ☒ ☐ 21. Were special log in instructions read and followed?
- ☒ ☐ 22. Were AFCEE metals logged for refrigerated storage?
- ☐ ☐ 23. Were tests logged checked against the COC? Which samples were confirmed? 001 006
- ☒ ☐ 24. Was a Rush form completed for quick TAT?
- ☒ ☐ 25. Was a Short Hold form completed for any short holds?
- ☐ ☒ 26. Is "Strict ICOC" required?
- ☐ ☒ 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials

- ☒ ☐ 28. Was the subcontract COC signed and sent with samples to bottle prep?
- ☒ ☐ 29. Were sample labels double-checked by a second person?
- ☒ ☐ 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- ☒ ☐ 31. Did the sample ID, Date, and Time from label match what was logged?
- ☒ ☐ 32. Were stickers for special archiving instructions affixed to each box and to the ICOC? See #27
- ☒ ☐ 33. Were AFCEE metals stored refrigerated?
- ☒ ☐ 34. Were "Strict ICOC" copies given to satellite storage areas?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).