

3R - 96

REPORTS

DATE:

April 1, 1997

CFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Michael Lane*
Company: *On Site Technologies, Ltd. c/o Conoco*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: *1-Apr-97*
COC No.: *5102*
Sample No.: *14049*
Job No.: *4-1361*

Project Name: *Conoco - 28-7 #219*

Project Location: *MW-1*

Sampled by: *HR*

Date: *26-Mar-97* Time: *13:40*

Analyzed by: *DC*

Date: *31-Mar-97*

Sample Matrix: *Liquid*

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Benzene	8.4	ug/L	0.2	ug/L
Toluene	19.2	ug/L	0.2	ug/L
Ethylbenzene	0.6	ug/L	0.2	ug/L
m,p-Xylene	2.9	ug/L	0.2	ug/L
o-Xylene	3.1	ug/L	0.2	ug/L
TOTAL	34.2	ug/L		

RECEIVED

MAY 20 1997

Environmental Bureau
Oil Conservation Division

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved By: *[Signature]*
Date: *4/1/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 31-Mar-97

Internal QC No.: 0527-STD

Surrogate QC No.: 0528-STD

Reference Standard QC No.: 0529/30-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes in Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	18.0	10	15%
Toluene	ppb	20.0	19.1	5	15%
Ethylbenzene	ppb	20.0	19.5	3	15%
m,p-Xylene	ppb	40.0	37.6	6	15%
o-Xylene	ppb	20.0	19.3	3	15%

Matrix Spike

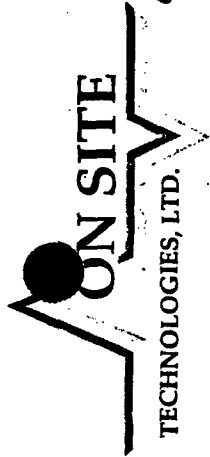
Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	87	80	(39-150)	3	20%
Toluene	90	81	(46-148)	2	20%
Ethylbenzene	96	89	(32-160)	5	20%
m,p-Xylene	93	86	(35-145)	4	20%
o-Xylene	95	88	(35-145)	4	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
14049-5102	94				

S1: Fluorobenzene

4/1/97



CHAIN OF CUSTODY RECORD

102

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Page _____ of _____

Date: 3/26/01

Purchase Order No.:		Job No. 411361		Name		Title	
SEND INVOICE TO		Name		Company		Company	
Name		Address		Mailing Address		Mailing Address	
City, State, Zip		City, State, Zip		City, State, Zip		City, State, Zip	
Sampling Location: 657 W. Maple		City, State, Zip		Telephone No.		Telefax No.	
Sampler:		Number of Containers		ANALYSIS REQUESTED			
SAMPLE IDENTIFICATION		SAMPLE		DATE		TIME	
DATE		DATE		DATE		DATE	
TIME		TIME		TIME		TIME	
PRES.		PRES.		PRES.		PRES.	
LAB ID		LAB ID		LAB ID		LAB ID	
Relinquished by: [Signature]		Date/Time		Date/Time		Date/Time	
Relinquished by:		Date/Time		Date/Time		Date/Time	
Relinquished by:		Date/Time		Date/Time		Date/Time	
Method of Shipment:		Rush		24-48 Hours		10 Working Days	
Authorized by: [Signature]		Date		Date		Date	
Special Instructions:		Special Instructions:		Special Instructions:		Special Instructions:	

VOLATILE AROMATIC HYDROCARBONS

Conoco, Inc.

Project ID: Not Given
Sample ID: MW #1 SJ28-7 #219
Lab ID: 0396G01343
Sample Matrix: Water
Condition: Cool/Intact

Report Date: 07/25/96
Date Sampled: 07/15/96
Date Received: 07/15/96
Date Extracted: NA
Date Analyzed: 07/18-25/96

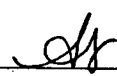
Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	5.6	1.0
Toluene	10.1	1.0
Ethylbenzene	ND	1.0
m,p-Xylenes	1.2	1.0
o-Xylene	2.3	1.0

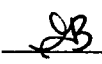
ND - Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Bromofluorobenzene	99.7%	75 -125%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:


Analyst


Review

**VOLATILE AROMATIC HYDROCARBONS
QUALITY CONTROL REPORT**

Duplicate Analysis

Lab ID: 0396G01343
Sample Matrix: Water
Condition: Cool/Intact

Report Date: 07/25/96
Date Analyzed: 07/18-25/96

Target Analyte	Duplicate Concentration (ppb)	Original Concentration (ppb)	% Difference
Benzene	4.8	5.6	15.4
Toluene	8.7	10.1	14.9
Ethylbenzene	ND	ND	NA
m,p-Xylenes	ND	1.2	NA
o-Xylene	2.0	2.3	14.0

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Bromofluorobenzene	82.8%	75 -125%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:


Analyst


Review

VOLATILE AROMATIC HYDROCARBONS QUALITY CONTROL REPORT

Matrix Spike Analysis

Lab ID: 0396G01343
Sample Matrix: Water
Condition: Cool/Intact

Report Date: 07/25/96
Date Analyzed: 07/18-25/96

Target Analyte	Spiked Sample Result in ppb	Sample result in ppb	Spike Added (ppb)	% Recovery	Acceptance Limits (%)
Benzene	168	5.63	150	109%	70-130
Toluene	194	10.06	150	123%	70-130
Ethylbenzene	173	ND	150	115%	70-130
m,p-Xylenes	299	ND	300	99.3%	70-130
o-Xylene	181	2.27	150	119%	70-130

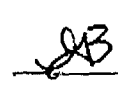
ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Bromofluorobenzene	106.4%	75 -125%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:


Analyst


Review

**VOLATILE AROMATIC HYDROCARBONS
QUALITY CONTROL REPORT**

Method Blank Analysis

Sample Matrix:
Lab ID:

Water
Method Blank

Report Date:
Date Analyzed:

07/25/96
07/18/96

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	ND	0.2
Toluene	ND	0.2
Ethylbenzene	ND	0.2
m,p-Xylenes	ND	0.2
o-Xylene	ND	0.2

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate

Percent Recovery

Acceptance Limits

Bromofluorobenzene

96.5%

75-125%

Reference:

Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

Quality Control / Quality Assurance

Known Analysis BTEX

Client: Conoco, Inc.
Project: Not Given

Date Reported: 07/18/96
Date Analyzed: 07/18/96

Known Analysis

Parameter	Found Concentration (ppb)	Known Concentration (ppb)	Percent Recovery	Acceptance Limits
Benzene	6.5	6.0	108%	70-130%
Toluene	7.3	6.0	121%	70-130%
Ethylbenzene	6.6	6.0	110%	70-130%
m+p-Xylene	11.6	12.0	97%	70-130%
o-Xylene	7.1	6.0	118%	70-130%

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Bromofluorobenzene	82.5%	75-125%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Reported by

AK

Reviewed by

JB



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AROMATIC VOLATILE ORGANICS

Client: **CONOCO**
Project Name: **NA**
Sample ID: **SJ 28-7 #219**
Sample Number: **039600350 / 0696G00467**
Sample Matrix: **Water**
Preservative: **Cool, HCl**
Condition: **Intact, pH < 2**

Report Date: **03/20/96**
Date Sampled: **03/12/96**
Date Received: **03/20/96**
Date Extracted: **03/20/96**
Date Analyzed: **03/20/96**
Time Analyzed: **11:24 AM**

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	0.019	0.01
Toluene	0.027	0.01
Ethylbenzene	ND	0.01
p,m-xylene	ND	0.01
o-xylene	ND	0.01

ND - Analyte not detected at stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
a,a,a-Trifluorotoluene	103%	75 - 125%
Bromofluorobenzene	103%	70 - 120%

Reference:

Method 5030A, Purge and Trap.
Method 8020A, Aromatic Volatile Organics.
SW-846, Test Methods for Evaluating Solid Waste, United States
Environmental Protection Agency, Final Update II, September 1994.

Comments:

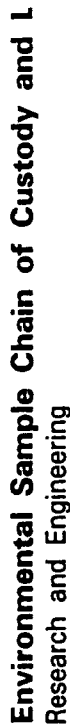
Elevated detection limits due to high levels of other compounds.

Note - mpph

Analyst

Ramona R. Dennis

Review



No. 277

Project Number

[illegible]



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QUALITY CONTROL REPORT - METHOD BLANK
VOLATILE AROMATIC HYDROCARBONS

Sample Number MB0320
Sample Matrix: Water

Report Date: 03/20/96
Date Analyzed: 03/20/96
Time Analyzed: 10:04 AM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.001
Toluene	ND	0.001
Ethylbenzene	ND	0.001
p,m-xylene	ND	0.001
o-xylene	ND	0.001

ND - Analyte not detected at stated detection limit

Quality Control: <u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
a,a,a-Trifluorotoluene	102%	75 - 125%
Bromofluorobenzene	99%	70 - 120%

Reference: Method 5030A, Purge and Trap.
Method 8020A, Aromatic Volatile Organics.
SW-846, Test Methods for Evaluating Solid Waste, United States
Environmental Protection Agency, Final Update II, September 1994.

Comments:

Analyst

Review



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QUALITY CONTROL REPORT - BLANK SPIKE
VOLATILE AROMATIC HYDROCARBONS

Sample Number: Blank Spike
Sample Matrix: Water

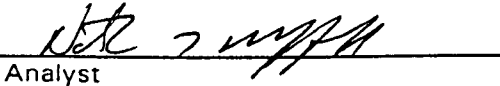
Report Date: 03/20/96
Date Extracted: 03/20/96
Date Analyzed: 03/20/96
Time Analyzed: 2:34 PM

Analyte	Spike Added ppb	Sample Result ppb	Spike Result ppb	Percent Recovery	Acceptance Limit
Benzene	0.020	ND	0.021	105%	39-150%
Toluene	0.020	ND	0.021	104%	46-148%
Ethylbenzene	0.020	ND	0.020	102%	32-160%
m-Xylene	0.020	ND	0.021	104%	50-150%
o-Xylene	0.020	ND	0.020	102%	50-150%

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	a,a,a-Trifluorotoluene	100%	75 - 125%
	Bromofluorobenzene	105%	70 - 120%

Reference: Method 5030A, Purge and Trap.
Method 8020A, Aromatic Volatile Organics.
SW-846, Test Methods for Evaluating Solid Waste, United States
Environmental Protection Agency, Final Update II, September 1994.

Comments:


Analyst


Review



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QUALITY CONTROL REPORT - BLANK SPIKE DUPLICATE
VOLATILE AROMATIC HYDROCARBONS

Sample Number: Blank Spike Duplicate
Sample Matrix: Water

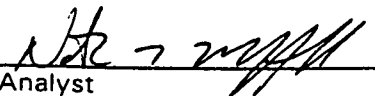
Report Date: 03/20/96
Date Extracted: 03/20/96
Date Analyzed: 03/20/96
Time Analyzed: 3:15 PM

Analyte	Spike Recovery (%)	Duplicate Recovery (%)	Percent Difference
Benzene	105 %	109 %	3 %
Toluene	104 %	108 %	4 %
Ethylbenzene	102 %	107 %	4 %
m-Xylene	104 %	109 %	4 %
o-Xylene	102 %	107 %	4 %

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	a,a,a-Trifluorotoluene	101 %	75 - 125 %
	Bromofluorobenzene	102 %	70 - 120 %

Reference: Method 5030A, Purge and Trap.
Method 8020A, Aromatic Volatile Organics.
SW-846, Test Methods for Evaluating Solid Waste, United States
Environmental Protection Agency, Final Update II, September 1994.

Comments:



Analyst



Review