

3R - 86

REPORTS

DATE:

2/10/2000

District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Drawer DD, Artesia, NM
88211
District III
1000 Rio Brazos Rd, Aztec,
NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088

Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO

SANTA FE OFFICE

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

Operator: Conoco Inc Telephone: (505) 325-5813

Address: 3315 Bloomfield Highway Farmington, New Mexico 87401

Facility Or: Farmington Com #1
Well Name

Location: Unit or Qtr/Qtr Sec: P Sec 11 T29N R13W County: San Juan

Pit Type: Separator Dehydrator Other

Land Type: BLM: , State: , Fee: , other

Pit Location: Pit dimensions: length: , width: , depth
(Attach diagram)

Reference: wellhead: , other: **See Attached Report**

Footage from reference:

Direction from reference: Degrees East North
of
 West South

Depth To Ground Water:

(Vertical distance from
contaminants to seasonal
high water elevation of
ground water)

Less than 50 feet (20 points)
50 feet to 99 feet (10 points)
Greater than 100 feet (0 points) 20

Wellhead Protection Area:

(Less than 200 feet from a private
domestic water source, or; less than
1000 feet from all other water sources)

Yes (20 points)
No (0 points) 20

Distance To Surface Water:

(Horizontal distance to perennial
lakes, ponds, rivers, streams, creeks,
irrigation canals and ditches)

Less than 200 feet (20 points)
200 feet to 1000 feet (10 points)
Greater than 1000 feet (0 points)
20

RANKING SCORE (TOTAL POINTS): 60

Date Remediation Started: _____ Date Completed: _____

Remediation Method: Excavation _____ Approx. cubic yards _____

(Check all appropriate sections)

Landfarmed _____ Insitu Bioremediation _____

Other _____

Remediation Location: Onsite _____ Offsite _____

(ie. landfarmed onsite, name and location of offsite facility)

General Description Of Remedial Action:

Refer to Attached Report

Ground Water Encountered: No _____ Yes _____ Depth _____

Final Pit:

Sample location

Closure Sampling:

(if multiple samples,
attach sample results
and diagram of sample
locations and depths)

**Refer to attached report for Sampling and laboratory
results.**

Sample depth

Sample Date _____ Sample Time _____

Sample Results

Benzene (ppm) _____

Total BTEX (ppm) _____

Field headspace (ppm) _____

TPH _____

Ground Water Sample: Yes _____ No _____ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY
KNOWLEDGE AND BELIEF

DATE: 2/10/00

SIGNATURE Shirley L. Ebert

PRINTED NAME Shirley L. EBERT TITLE FSE



January 4, 2000

Conoco, Inc., Mid-Continent Region
Attn.: Ms. Shirley Ebert, Field SHEAR Specialist
3314 Bloomfield Hwy.
Farmington, NM 87401

RE: 1999 Annual Ground Water and Final Closure Report
Conoco Location: Farmington COM #1
Unit P, Sec. 11, T29N, R13W, NMPM, San Juan Co., NM

Project #: 4-1372

The following report summarizes the ground water remediation and monitoring activities conducted by On Site Technologies Limited Partnership and/or others on behalf of Conoco, Inc., at the referenced oil and gas location. This report covers the calendar year of 1999, and follows the format outlined in the *Comprehensive Ground Water Remediation and Long-Term Monitoring Plan for Conoco Locations in the San Juan Basin, New Mexico*, submitted to the New Mexico Oil Conservation Division on October 15, 1997.

SUMMARY OF ACTIVITIES:

In 1997 a site assessment was conducted at the Farmington Com #1. The site assessment determined that hydrocarbon contaminated was present and that the location would have to be excavated and quarterly groundwater monitoring would have to be conducted.

In December of 1997 excavation of the site was done, approximately 1400 cubic yards of petroleum contaminated soil was removed. The excavated location was backfilled with clean imported soil. During the excavation monitoring well MW #1, that was installed in April, 1997, was removed and a new monitoring well was placed in the excavated site and designated MW #1. Summaries of the excavation and remediation activities were previously reported. References list at the end of this report.

disposed
at a
commercial
facility

In September 1998, NMOCD modified the sampling requirements for the referenced location as follows

- MMW #2 and MW #3 were to placed deeper into the water table
- Install a piezometer down gradient of MW #1
- Develop and sample piezometer, if laboratory result at or below NMWQCC standards discontinue sampling.

During December 1998 all of NMOCD's requirements were incorporated in to the location. 1998 groundwater monitoring results indicated a downward trend in levels of BTEX contamination levels.

1999 ground water monitoring was conducted in March, June, September and December. Laboratory results show BTEX levels below NMWQCC standards for the last four (4) consecutive quarters.

PO Box 2606
Farmington, NM

505-325-5667

FAX: 505-327-1496

SAMPLING:

In accordance with the Monitoring plan, water levels were measured on all monitoring wells prior to purging and sampling. Samples were collected, preserved and transported in accordance with Environmental Protection Agency (EPA) prescribed procedures and proper chain-of-custody protocol followed. The laboratory analyses ordered, followed the Conoco Ground Water Plan.

Table 1, summarizes the monitoring well data and water levels measured during previous and current sampling events. Table 2, summarizes the laboratory results for BTEX compounds from all water sampling completed at the referenced site. Table 3, summarizes the laboratory results for metal contamination from MW#1.

Copies of all laboratory reports for calendar year 1999, along with all laboratory QA/QC documentation and chains-of-custody, are attached with this report. Previous laboratory results were submitted to NMOCD.

CONCLUSIONS:

The following conclusions are based on the 1998 ground water monitoring results and trends associated with a former production pit at the Farmington Com #1 well location:

- BTEX contamination levels are below NMWQCC standard for MW#1, MW#2 and MW#3 for the last four (4) sampling events.
- The site is in compliance with NMWQCC water quality standards and should be considered stable.

RECOMMENDATION:

In accordance with the Conoco's Comprehensive Ground Water Remediation and Long Term Monitoring for Conoco Location in the San Juan Basin, New Mexico, four (4) consecutive quarters of water quality at or below NMWQCC standards had been met, and no further action should be taken at the referenced location.

On behalf of Conoco Inc., On Site Technologies Limited Partnership requests that the reference location be closed and that the monitoring wells and piezometer be plugged and abandoned in accordance with current regulations

LIMITATIONS AND CLOSURE:

This annual groundwater and final closure report documents the results of ground water monitoring for the referenced Conoco well location during the calendar year 1999 and summarizes previous remediation and ground water monitoring activities. This report follows the Comprehensive Ground Water Remediation and Long-Term Monitoring Plan for Conoco Locations in the San Juan Basin, New Mexico, dated October 15, 1997.

The scope of On Site Technologies' services consisted of project management, periodic water sampling and measurement of water levels, laboratory testing for ground water quality, and preparation of this report. All work has been performed in accordance with generally accepted professional practices in geotechnical, petroleum and environmental engineering, and hydrogeology.

This document has been prepared by On Site Technologies for the exclusive use of Conoco Inc., as it pertains to the referenced well location operated by Conoco.

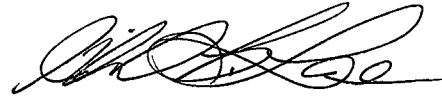
If there are any questions regarding this status report, please contact either Myke Lane or Larry Trujillo at On Site Technologies, (505) 325-5667. Thank you for your consideration.

Respectfully submitted,

Reviewed by:



Larry Trujillo, C.H.M.M.
Project Manager



Michael K. Lane, P.E.
Senior Engineer

On Site Technologies, Limited Partnership

Attachments: Table 1: Monitoring Well Details and Ground Water Levels Summary
Table 2: Ground Water BTEX Analytical Summary
Table 3: Other Constituents Analytical Summary
Figure 1: Site Sketch
Figure 2, 3, 4 & 5 Ground Water Potentiometric Map
Laboratory Results, QA/QC, Chain of Custody

REFERENCES:

On Site Technologies, Ltd., April 16, 1997: Letter to Mr. W. L. Brignon, Senior Council Conoco, Inc. Midland Division, *regarding: Site Assessment, Conoco Location, Farmington Com #1, Unit P, Sec. 11, T29N, R13W, NMPM, San Juan Co., NM.*

On Site Technologies, Ltd., January 16, 1998: Letter to Mr. Neal Goates, Senior Environmental Specialist, Conoco, Inc. Midland Division, *regarding: Remediation Summary, Conoco Location, Farmington Com #1, Unit P, Sec. 11, T29N, R13W, NMPM, San Juan Co., NM.*

On Site Technologies, Ltd., February 1, 1998: Letter to Ms. Shirley Ebert, SHEAR Specialist, Conoco, Inc. Midland Division, *regarding: 1997 Annual Ground Water Report, Conoco Location, Farmington Com #1, Unit P, Sec. 11, T29N, R13W, NMPM, San Juan Co., NM.*

On Site Technologies, Ltd., February 8, 1999: Letter to Ms. Shirley Ebert, SHEAR Specialist, Conoco, Inc. Midland Division, *regarding: 1998 Annual Ground Water Report, Conoco Location, Farmington Com #1, Unit P, Sec. 11, T29N, R13W, NMPM, San Juan Co., NM.*

Table 1

Ground Water Level Summary
Farmington COM #1
Unit P, Sec. 11, T29N, R13W

Well Number	Top of Casing Elevation* (ft)	Total Depth of Well (ft)*	Well Type	Screen Interval (ft) (BGS) *	Sample Date	Depth to Groundwater (ft) (BTOC)*	Relative Groundwater Elevation (ft)
MW#1	99.84	9.82	2" PVC	4.82 to 9.82	12/30/97	7.49	92.35
					3/13/97	7.37	92.47
					6/12/98	6.43	92.37
					9/15/98	8.35	91.49
					12/28/98	6.44	93.35
	99.79				3/2/99	7.46	92.33
					6/7/99	6.14	93.65
					9/4/99	7.56	92.23
					12/15/99	7.73	92.03
					12/30/97	6.75	92.05
MW#2	98.80	7.84	2" PVC	2.84 to 7.84	3/13/98	6.77	92.03
					6/12/98		
					9/15/98	No Measurable Water	
					12/28/98	7.34	92.06
					3/2/99	7.44	91.96
	99.40				6/7/99	6.24	93.16
					9/4/99	7.42	91.98
					12/15/99	7.62	91.78
					12/30/97	No Measurable Water	
MW#3	98.98	6.25	2" PVC		3/13/98	5.21	93.77
					6/12/98	5.93	93.05
					9/15/98	No Measurable Water	
					12/28/98	7.46	92.14
					3/2/99	7.56	92.02
	99.56				6/7/99	6.32	93.26
					9/4/99	7.54	92.04
					12/15/99	7.71	91.87

*BGS - approximate measurements taken as Below Ground Surface
BTOC - Below Top of Casing
NM - Not Measured

Table 1
Ground Water Level Summary
Farmington COM #1
Unit P, Sec. 11, T29N, R13W

Well Number	Top of Casing Elevation* (ft)	Total Depth of Well (ft)*	Well Type	Screen Interval (ft) (BGS) *	Sample Date	Depth to Groundwater (ft) (BTOC)*	Relative Groundwater Elevation (ft)
Piezometer	100.38	10.01	2" PVC	4.01 to 10.01	12/28/98	8.36	92.02
					3/2/99	8.43	91.95
					6/7/99	7.16	93.22
					9/4/99	8.38	92.00
					12/15/99	8.52	91.86
*BGS - approximate measurements taken as Below Ground Surface BTOC - Below Top of Casing NM - Not Measured							

- Monitoring Well found broken off below ground level 6/12/98
- 1. Depth measured on 6/12/98 with water in the well
- Location re-surveyed on 12/31/98, MW-1 elevation change due to gas well site activity, all other are due to resetting of well and installation of piezometer.

Table 2

BTEX Analytical Summary

Farmington COM #1

Unit P, Sec. 11, T29N, R13W

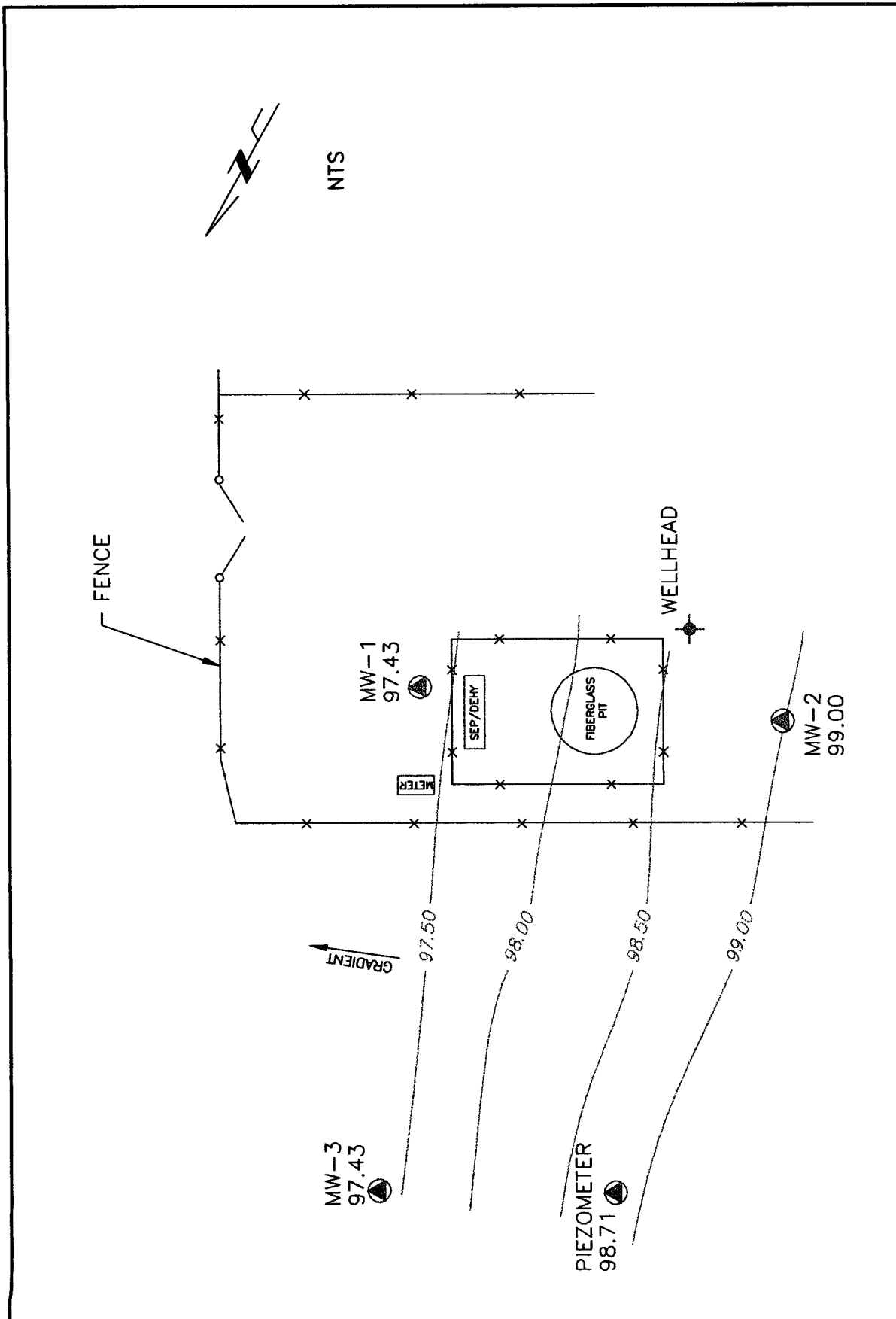
Sample Date	Sample ID#	Monitor Well	Remarks	BTEX per EPA 8020 (ppb)			
				Benzene	Toluene	Ethylbenzene	Total Xylene
12/30/97	17250	MW #1	On Site Lab.	35.3	5.2	10.7	472.9
3/13/98	9803043-01A	MW#1		BDL	5.4	1.8	12.0
6/12/98	9806054-01A	MW#1		BDL	BDL	BDL	BDL
9/15/98	9809033-01A	MW#1		BDL	1.1	1.6	BDL
12/28/98	9812050-02A	MW#1		BDL	BDL	0.7	0.6
3/2/99	9903009-01A	MW#1		BDL	BDL	BDL	BDL
6/7/99	9906021-03A	MW#1		BDL	BDL	BDL	BDL
9/14/99	9909048-03A	MW#1		BDL	1.2	BDL	BDL
12/15/99	9912020-02A	MW#1		BDL	0.7	BDL	BDL
12/31/97	17253	MW #2	On Site Lab.	BDL	BDL	BDL	BDL
3/13/98	9803043-02A	MW#2		BDL	BDL	BDL	BDL
6/12/98	WELL	DAMAGED					
9/15/98			No Measurable Water				
12/29/98	9812052-01A	MW#2		BDL	BDL	BDL	BDL
3/2/99	9903013-01A	MW#2		BDL	BDL	4.3	85.0
6/7/99	9906021-002A	MW#2		BDL	BDL	BDL	BDL
9/14/99	9909048-02A	MW#2		BDL	1.0	BDL	BDL
12/15/99	9912020-01A	MW#2		BDL	0.9	BDL	BDL
WQCC	ACTION	LEVELS		10.0	750.0	750.0	620.0

BDL Below Detection Levels

Table 2
 BTEX Analytical Summary
 Farmington COM #1
 Unit P, Sec. 11, T29N, R13W

Sample Date	Sample ID#	Monitor Well	Remarks	BTEX per EPA 8020 (ppb)			
12/30/97	No Sample	MW #3	No Measurable Water				
3/13/98	No Sample		No Measurable Water				
6/12/98	9806054-02A		On Site Lab	BDL	BDL	BDL	BDL
9/15/98			No Measurable Water				
12/29/98	9812052-02A	MW #3		BDL	1.6	BDL	BDL
3/2/99	903009-02A	MW #3		BDL	BDL	BDL	BDL
6/7/99	9906021-01A	MW #3		BDL	BDL	BDL	BDL
9/14/99	9909048-01A	MW #3		BDL	BDL	BDL	BDL
12/16/99	9912023-01A	MW #3		BDL	BDL	BDL	BDL
12/28/98	9812050-01A	Piezometer	On Site Lab.	BDL	BDL	BDL	BDL
WQCC	ACTION	LEVELS		10.0	750.0	750.0	620.0

BDL Below Detection Levels



GROUND WATER POTENTIOMETRIC MAP - MARCH, 1999

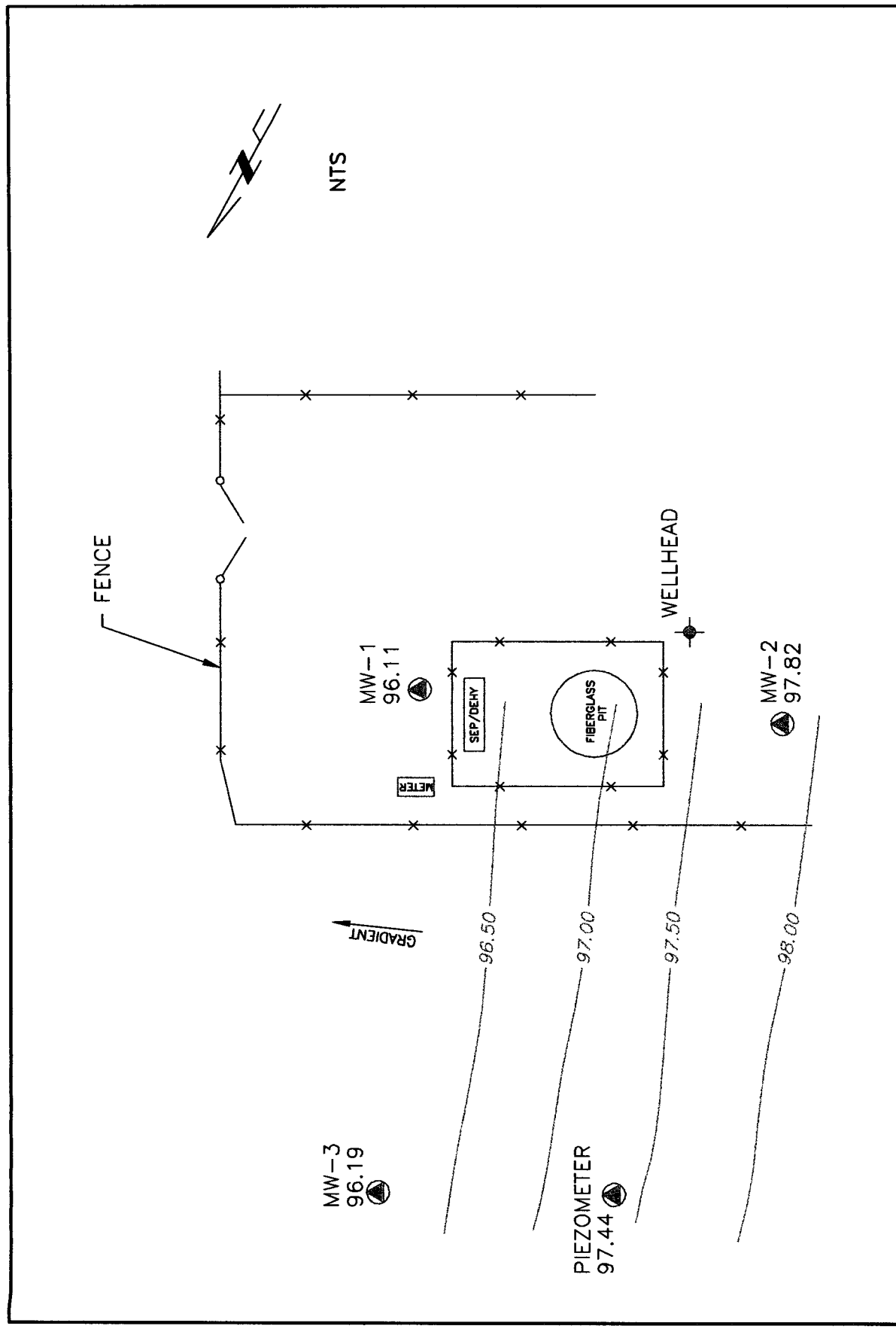
FARMINGTON COM #1

UNIT P, SEC. 11, T29N, R13W, NMPM
SAN JUAN COUNTY, NEW MEXICO

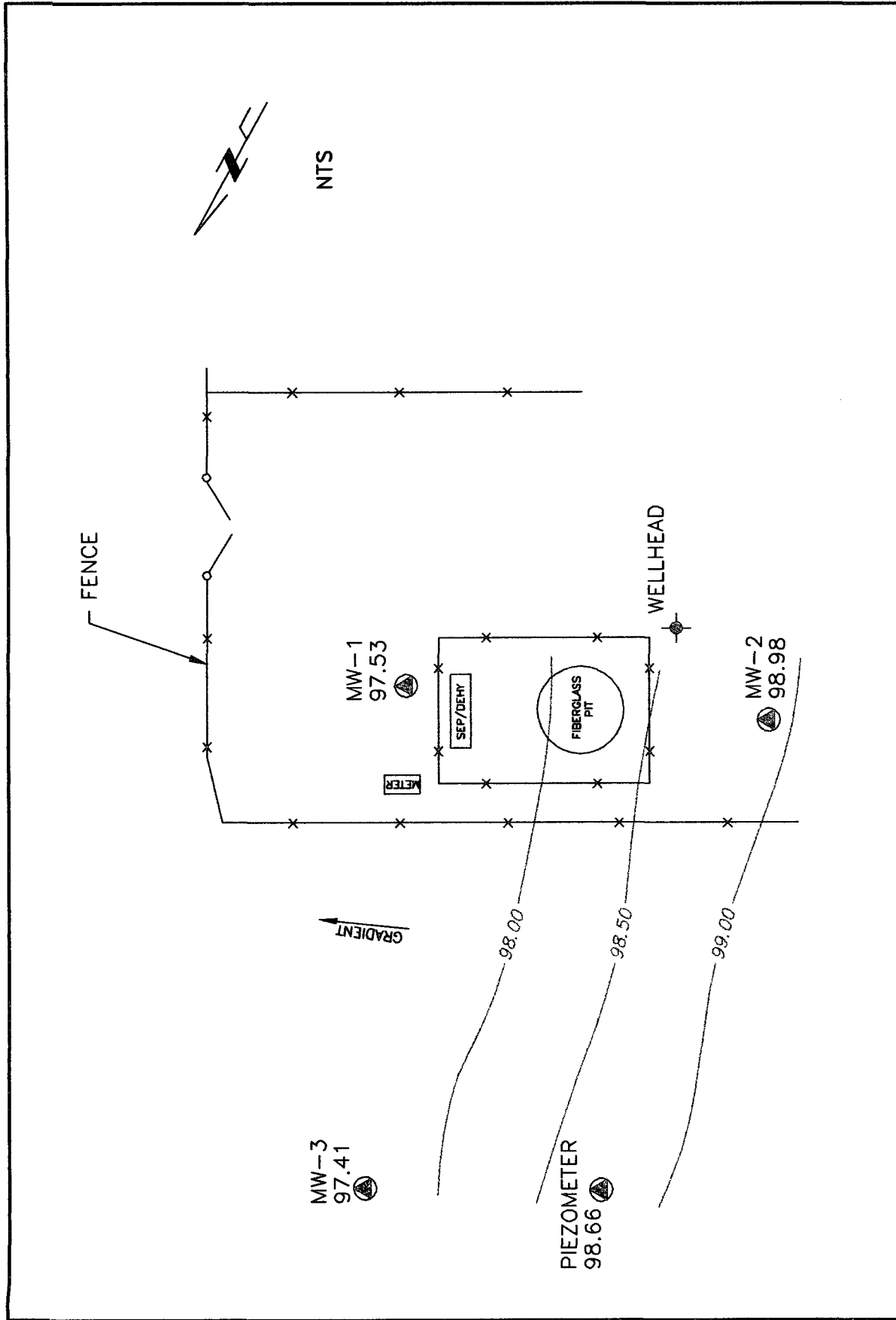
APPROVED:	DATE:
DRWN BY: MED	DATE: 1/17/00
CHK'D BY:	DATE:
PROJECT NO: 4-1372	SHEET: 1 OF 4



612 E. MURRAY DR. PH. (505) 826-6667
FARMINGTON, NM 87401 FAX (505) 827-1496



ON SITE TECHNOLOGIES, LTD. Limited Partnership 612 E. MURRAY DR. PH. (806) 826-5667 FARMINGTON, NM 87401 FAX (806) 827-1496		APPROVED:	DATE:	GROUND WATER POTENTIOMETRIC MAP - JUNE, 1999
DRWN BY: MED		DATE: 1/17/00	FARMINGTON COM #1	UNIT P, SEC. 11, T29N, R18W, NMPM
CHK'D BY:		DATE:	SAN JUAN COUNTY, NEW MEXICO	UNIT P, SEC. 11, T29N, R18W, NMPM
PROJECT NO: 4-1372		SHEET: 2 OF 4		



41372/coo3.dwg

GROUND WATER POTENTIOMETRIC MAP - SEPTEMBER, 1999

FARMINGTON COM #1

UNIT P, SEC. 11, T20N, R13W, NMPM

SAN JUAN COUNTY, NEW MEXICO

APPROVED:	DATE:
DRWN BY: MED	DATE: 1/17/00
CHK'D BY:	DATE:
PROJECT NO: 4-1372	SHEET: 3 OF 4

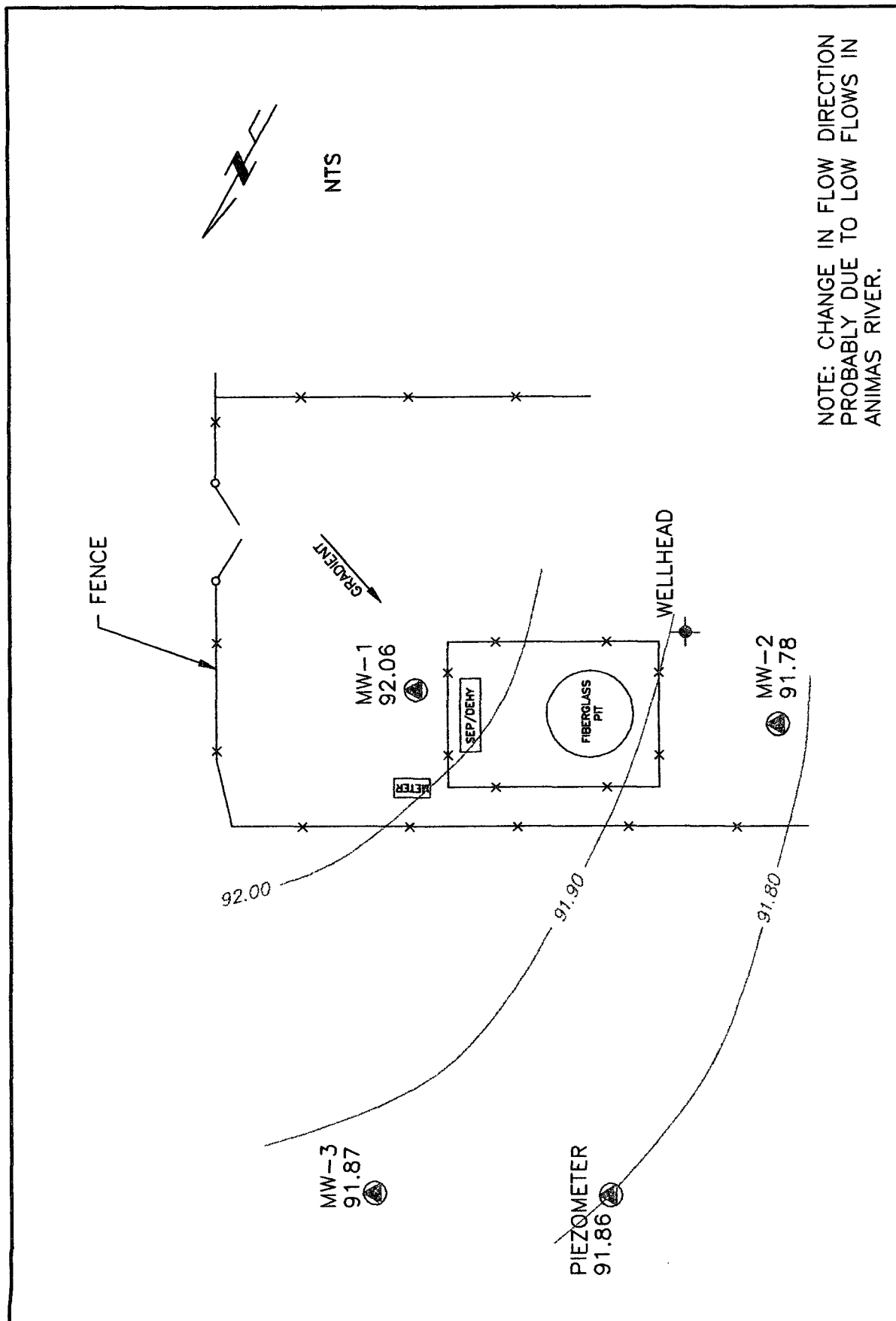
ON SITE

TECHNOLOGIES, LTD.

Limited Partnership

612 E. MURRAY DR. PH. (505) 825-6667

FARMINGTON, NM 87401 FAX (505) 927-1496



GROUND WATER POTENTIOMETRIC MAP - DECEMBER, 1989 FARMINGTON COM #1 UNIT P, SEC. 11, T29N, R13E, N40PH SAN JUAN COUNTY, NEW MEXICO		APPROVED:		DATE:	
DRWN BY: MED		DATE: 1/17/00		DATE:	
CHK'D BY:		DATE:		DATE:	
PROJECT NO: 4-1372		SHEET: 4 OF 4		DATE:	

ON SITE
TECHNOLOGIES, LTD.
Limited Partnership

618 E. MURRAY DR. PH. (505) 825-6667
FARMINGTON, NM 87401 FAX (505) 827-1496

OFF: (505) 325-5667



LAB: (505) 325-1556

March 10, 1999

Larry Trujillo
Conoco, Inc.
3315 Bloomfield Hwy
Farmington, NM 87401
TEL: (505) 327-9557
FAX (505) 324-5825

RE: 4-1372; Farmington Com-1

Order No.: 9903009

Dear Larry Trujillo,

On Site Technologies, LTD. received 2 samples on 3/2/99 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

BTEX (SW8021B)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read "David Cox", written over a horizontal line.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 10-Mar-99

CLIENT: Conoco, Inc.
Project: 4-1372; Farmington Com-1
Lab Order: 9903009

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 10-Mar-99

Client:	Conoco, Inc.	Client Sample Info:	Farmington Com-1
Work Order:	9903009	Client Sample ID:	MW-1
Lab ID:	9903009-01A	Matrix:	AQUEOUS
Project:	4-1372; Farmington Com-1	Collection Date:	3/2/99 9:21:00 AM
		COC Record:	10014

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8021B				Analyst: HR
Benzene	ND	0.5		µg/L	1	3/8/99
Toluene	ND	0.5		µg/L	1	3/8/99
Ethylbenzene	ND	0.5		µg/L	1	3/8/99
m,p-Xylene	ND	1		µg/L	1	3/8/99
o-Xylene	ND	0.5		µg/L	1	3/8/99

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 10-Mar-99

Client:	Conoco, Inc.	Client Sample Info:	Farmington Com-1
Work Order:	9903009	Client Sample ID:	MW-3
Lab ID:	9903009-02A	Matrix:	AQUEOUS
Project:	4-1372; Farmington Com-1	Collection Date:	3/2/99 9:15:00 AM
		COC Record:	10014

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8021B				Analyst: HR
Benzene	ND	0.5		µg/L	1	3/8/99
Toluene	ND	0.5		µg/L	1	3/8/99
Ethylbenzene	ND	0.5		µg/L	1	3/8/99
m,p-Xylene	ND	1		µg/L	1	3/8/99
o-Xylene	ND	0.5		µg/L	1	3/8/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 10-Mar-99

CLIENT: Conoco, Inc.

Work Order: 9903009

Project: 4-1372; Farmington Com-1

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_990308	Test Code: SW8021B	Units: µg/L	Analysis Date 3/8/99	Prep Date:
Client ID:	9903009	Run ID: GC-1_990308A		SeqNo: 11839	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	ND	0.5			
Ethylbenzene	ND	0.5			
m,p-Xylene	ND	1			
Methyl tert-Butyl Ether	ND	1			
o-Xylene	.0298	0.5			J
Toluene	.0703	0.5			J

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 10-Mar-99

CLIENT: Conoco, Inc.

Work Order: 9903009

Project: 4-1372; Farmington Com-1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 9902089-02AMS		Batch ID: GC-1_990308		Test Code: SW8021B		Units: µg/L		Analysis Date 3/8/99		Prep Date:	
Client ID: 9903009		Run ID: GC-1_990308A		PQL		SPK value		SeqNo: 11840			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	201.2	2.5	200	0.399	100.4%	73	115				
Ethylbenzene	205.8	2.5	200	7.29	99.3%	74	117				
m,p-Xylene	422	5	400	37.21	96.2%	76	112				
Methyl tert-Butyl Ether	201.9	5	200	0	101.0%	62	122				
o-Xylene	206.4	2.5	200	6.91	99.7%	83	112				
Toluene	361.2	2.5	200	168.1	96.5%	71	120				

Sample ID: 9902089-02AMSD		Batch ID: GC-1_990308		Test Code: SW8021B		Units: µg/L		Analysis Date 3/8/99		Prep Date:		
Client ID:		9903009		Run ID:		GC-1_990308A		SeqNo: 11841				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		206.4	2.5	200	0.399	103.0%	73	115	201.2	2.5%	8	
Ethylbenzene		211.1	2.5	200	7.29	101.9%	74	117	205.8	2.5%	9	
m,p-Xylene		432	5	400	37.21	98.7%	76	112	422	2.3%	9	
Methyl tert-Butyl Ether		203.1	5	200	0	101.5%	62	122	201.9	0.6%	7	
o-Xylene		210.8	2.5	200	6.91	101.9%	83	112	206.4	2.1%	9	
Toluene		370	2.5	200	168.1	100.9%	71	120	361.2	2.4%	9	

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 10-Mar-99

CLIENT: Conoco, Inc.
Work Order: 9903009
Project: 4-1372; Farmington Com-1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER		Batch ID: GC-1_990308		Test Code: SW8021B		Units: µg/L		Analysis Date 3/8/99		Prep Date:	
Client ID:		9903009		Run ID: GC-1_990308A				SeqNo: 11838			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	42.31	0.5	40	0	105.8%	84	110				
Ethylbenzene	42.1	0.5	40	0	105.3%	86	113				
m,p-Xylene	82.11	1	80	0	102.6%	81	114				
Methyl tert-Butyl Ether	40.3	1	40	0	100.7%	69	129				
o-Xylene	42.03	0.5	40	0.0298	105.0%	86	112				
Toluene	41.6	0.5	40	0.0703	103.8%	85	111				

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 10-Mar-99

CLIENT: Conoco, Inc.
Work Order: 9903009
Project: 4-1372; Farmington Com-1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 QC0606/07		Batch ID: GC-1_990308	Test Code: SW8021B	Units: µg/L	Analysis Date 3/8/99		Prep Date:	
Client ID: 9903009		Run ID: GC-1_990308A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							
Benzene	20.99		0.5	20	0	105.0%	85	115
Ethylbenzene	20.95		0.5	20	0	104.8%	85	115
m,p-Xylene	40.81		1	40	0	102.0%	85	115
Methyl tert-Butyl Ether	20.4		1	20	0	102.0%	85	115
o-Xylene	20.95		0.5	20	0	104.8%	85	115
Toluene	20.6		0.5	20	0	103.0%	85	115
1,4-Difluorobenzene	93.85		0	100	0	93.8%	84	100
4-Bromochlorobenzene	96.37		0	100	0	96.4%	87	105
Fluorobenzene	96.13		0	100	0	96.1%	87	99

Sample ID: CCV2 QC0606/07		Batch ID: GC-1_990308	Test Code: SW8021B	Units: µg/L	Analysis Date 3/8/99		Prep Date:	
Client ID: 9903009		Run ID: GC-1_990308A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							
Benzene	21.28		0.5	20	0	106.4%	85	115
Ethylbenzene	21.1		0.5	20	0	105.5%	85	115
m,p-Xylene	40.9		1	40	0	102.3%	85	115
Methyl tert-Butyl Ether	20.43		1	20	0	102.2%	85	115
o-Xylene	21.06		0.5	20	0	105.3%	85	115
Toluene	20.86		0.5	20	0	104.3%	85	115
1,4-Difluorobenzene	93.79		0	100	0	93.8%	84	100
4-Bromochlorobenzene	96.38		0	100	0	96.4%	87	105
Fluorobenzene	95.75		0	100	0	95.8%	87	99

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Conoco, Inc.
Work Order: 9903009
Project: 4-1372; Farmington Com-1

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

Sample ID: CCV3 QC0606/07		Batch ID: GC-1_990308		Test Code: SW8021B		Units: µg/L		Analysis Date 3/8/99		Prep Date:	
Client ID:		9903009		Run ID: GC-1_990308A				SeqNo: 11837			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.6	0.5	40	0	101.5%	85	115				
Ethylbenzene	40.11	0.5	40	0	100.3%	85	115				
m,p-Xylene	78.34	1	80	0	97.9%	85	115				
Methyl tert-Butyl Ether	40.67	1	40	0	101.7%	85	115				
o-Xylene	40.58	0.5	40	0	101.4%	85	115				
Toluene	39.95	0.5	40	0	99.9%	85	115				
1,4-Difluorobenzene	93.52	0	100	0	93.5%	84	100				
4-Bromochlorobenzene	94.65	0	100	0	94.7%	87	105				
Fluorobenzene	95.46	0	100	0	95.5%	87	99				

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

2 of 2

On Site Technologies, LTD.

Date: 10-Mar-99

CLIENT: Conoco, Inc.
 Work Order: 9903009
 Project: 4-1372; Farmington Com-1
 Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

BTEX

Sample ID	14FBZ	4BCBZ	FLBZ					
9902089-01A	94.3	96.5	96.4					
9902089-02AMS	93.2	96.5	95.2					
9902089-02AMSD	92.7	96.4	95.4					
9902096-01A	94.4	96	96.4					
9902096-02A	94.2	96.4	96.5					
9902096-03A	94	96.4	96.6					
9902096-05A	94.5	95.8	96.3					
9903001-02A	94	95.5	96.7					
9903002-01A	89.9	93.1	93.5					
9903003-01A	93.7	96.1	96					
9903004-01A	89.8	94.5	92.1					
9903006-01A	92.5	95.9	94					
9903006-02A	92.6	93.9	95.1					
9903006-03A	94.4	95.7	96.4					
9903008-01A	89.3	90.7	96.6					
9903009-01A	94.4	95.9	96.9					
9903009-02A	94.2	96.3	96.4					
9903010-01A	92.5	97.3	94.5					
9903013-01A	93.6	94.8	95.6					
CCV1 QC0606/07	93.8	96.4	96.1					
CCV2 QC0606/07	93.8	96.4	95.8					
CCV3 QC0606/07	93.5	94.6	95.4					
LCS WATER	93.4	96.4	95.4					
MB1	94.2	96.3	96.6					

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	84-100
4BCBZ	= 4-Bromochlorobenzene	87-105
FLBZ	= Fluorobenzene	87-99

* Surrogate recovery outside acceptance limits



Date: 9.3.09

Page: _____ of _____

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[illegible]



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Page: _____ of _____

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client

OFF: (505) 325-5667



LAB: (505) 325-1556

March 10, 1999

Larry Trujillo
Conoco, Inc.
3315 Bloomfield Hwy
Farmington, NM 87401
TEL: (505) 327-9557
FAX (505) 324-5825

RE: 4-1372; Farmington Com-1

Order No.: 9903013

Dear Larry Trujillo,

On Site Technologies, LTD. received 1 sample on 3/3/99 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
BTEX (SW8021B)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in dark ink, appearing to read "David Cox", with a stylized flourish at the end.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 10-Mar-99

CLIENT: Conoco, Inc.
Project: 4-1372; Farmington Com-1
Lab Order: 9903013

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 10-Mar-99

Client:	Conoco, Inc.	Client Sample Info:	Farmington Com-1
Work Order:	9903013	Client Sample ID:	MW-2
Lab ID:	9903013-01A	Matrix:	AQUEOUS
Project:	4-1372; Farmington Com-1	Collection Date:	3/3/99 9:30:00 AM
		COC Record:	10019

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8021B				Analyst: HR
Benzene	ND	0.5		µg/L	1	3/8/99
Toluene	ND	0.5		µg/L	1	3/8/99
Ethylbenzene	4.3	0.5		µg/L	1	3/8/99
m,p-Xylene	79	1		µg/L	1	3/8/99
o-Xylene	6	0.5		µg/L	1	3/8/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 10-Mar-99

CLIENT: Conoco, Inc.

Work Order: 9903013

Project: 4-1372, Farmington Corn-1

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_990308	Test Code: SW8021B	Units: µg/L	Analysis Date 3/8/99	Prep Date:						
Client ID:	9903013	Run ID: GC-1_990308A		SeqNo: 11839							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND										
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	.0298	0.5									J
Toluene	.0703	0.5									J

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 10-Mar-99

CLIENT: Conoco, Inc.

Work Order: 9903013

Project: 4-1372; Farmington Com-1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 9902089-02AMS		Batch ID: GC-1_990308	Test Code: SW8021B	Units: µg/L	Analysis Date 3/8/99		Prep Date:	
Client ID: 9903013		Run ID: GC-1_990308A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							
Benzene	201.2		2.5	200	0.399	100.4%	73	115
Ethylbenzene	205.8		2.5	200	7.29	99.3%	74	117
m,p-Xylene	422		5	400	37.21	96.2%	76	112
Methyl tert-Butyl Ether	201.9		5	200	0	101.0%	62	122
o-Xylene	206.4		2.5	200	6.91	99.7%	83	112
Toluene	361.2		2.5	200	168.1	96.5%	71	120

Sample ID: 9902089-02AMSD		Batch ID: GC-1_990308	Test Code: SW8021B	Units: µg/L	Analysis Date 3/8/99		Prep Date:	
Client ID: 9903013		Run ID: GC-1_990308A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							
Benzene	206.4		2.5	200	0.399	103.0%	73	115
Ethylbenzene	211.1		2.5	200	7.29	101.9%	74	117
m,p-Xylene	432		5	400	37.21	98.7%	76	112
Methyl tert-Butyl Ether	203.1		5	200	0	101.5%	62	122
o-Xylene	210.8		2.5	200	6.91	101.9%	83	112
Toluene	370		2.5	200	168.1	100.9%	71	120

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 10-Mar-99

CLIENT: Conoco, Inc.
Work Order: 9903013
Project: 4-1372, Farmington Com-1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER		Batch ID: GC-1_990308	Test Code: SW8021B	Units: µg/L	Analysis Date 3/8/99				Prep Date:		
Client ID:		9903013	Run ID: GC-1_990308A		SeqNo: 11838						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	42.31	0.5	40	0	105.8%	84	110				
Ethylbenzene	42.1	0.5	40	0	105.3%	86	113				
m,p-Xylene	82.11	1	80	0	102.6%	81	114				
Methyl tert-Butyl Ether	40.3	1	40	0	100.7%	69	129				
o-Xylene	42.03	0.5	40	0.0298	105.0%	86	112				
Toluene	41.6	0.5	40	0.0703	103.8%	85	111				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 10-Mar-99

CLIENT: Conoco, Inc.

Work Order: 9903013

Project: 4-1372; Farmington Com-1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 QC0606/07		Batch ID: GC-1_990308	Test Code: SW8021B	Units: µg/L	Analysis Date 3/8/99		Prep Date:	
Client ID: 9903013		Run ID: GC-1_990308A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							
Benzene	20.99		0.5	20	0	105.0%	85	115
Ethylbenzene	20.95		0.5	20	0	104.8%	85	115
m,p-Xylene	40.81		1	40	0	102.0%	85	115
Methyl tert-Butyl Ether	20.4		1	20	0	102.0%	85	115
o-Xylene	20.95		0.5	20	0	104.8%	85	115
Toluene	20.6		0.5	20	0	103.0%	85	115
1,4-Difluorobenzene	93.85		0	100	0	93.8%	84	100
4-Bromochlorobenzene	96.37		0	100	0	96.4%	87	105
Fluorobenzene	96.13		0	100	0	96.1%	87	99

Sample ID: CCV2 QC0606/07		Batch ID: GC-1_990308	Test Code: SW8021B	Units: µg/L	Analysis Date 3/8/99		Prep Date:	
Client ID: 9903013		Run ID: GC-1_990308A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							
Benzene	21.28		0.5	20	0	106.4%	85	115
Ethylbenzene	21.1		0.5	20	0	105.5%	85	115
m,p-Xylene	40.9		1	40	0	102.3%	85	115
Methyl tert-Butyl Ether	20.43		1	20	0	102.2%	85	115
o-Xylene	21.06		0.5	20	0	105.3%	85	115
Toluene	20.86		0.5	20	0	104.3%	85	115
1,4-Difluorobenzene	93.79		0	100	0	93.8%	84	100
4-Bromochlorobenzene	96.38		0	100	0	96.4%	87	105
Fluorobenzene	95.75		0	100	0	95.8%	87	99

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Conoco, Inc.
Work Order: 9903013
Project: 4-1372; Farmington Com-1

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

Sample ID: CCV3 QC0606/07		Batch ID: GC-1_990308		Test Code: SW8021B		Units: µg/L		Analysis Date 3/8/99		Prep Date:		
Client ID: 9903013		Run ID: GC-1_990308A		PQL		SPK value		SeqNo: 11837				
Analyte	Result					%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.6		0.5		40	0	85	115				
Ethylbenzene	40.11		0.5		40	0	85	115				
m,p-Xylene	78.34		1		80	0	85	115				
Methyl tert-Butyl Ether	40.67		1		40	0	85	115				
o-Xylene	40.58		0.5		40	0	85	115				
Toluene	39.95		0.5		40	0	85	115				
1,4-Difluorobenzene	93.52		0		100	0	84	100				
4-Bromochlorobenzene	94.65		0		100	0	87	105				
Fluorobenzene	95.46		0		100	0	87	99				

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 10-Mar-99

CLIENT: Conoco, Inc.
Work Order: 9903013
Project: 4-1372; Farmington Com-1
Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

BTEX

Sample ID	14FBZ	4BCBZ	FLBZ					
9902089-01A	94.3	96.5	96.4					
9902089-02AMS	93.2	96.5	95.2					
9902089-02AMSD	92.7	96.4	95.4					
9902096-01A	94.4	96	96.4					
9902096-02A	94.2	96.4	96.5					
9902096-03A	94	96.4	96.6					
9902096-05A	94.5	95.8	96.3					
9903001-02A	94	95.5	96.7					
9903002-01A	89.9	93.1	93.5					
9903003-01A	93.7	96.1	96					
9903004-01A	89.8	94.5	92.1					
9903006-01A	92.5	95.9	94					
9903006-02A	92.6	93.9	95.1					
9903006-03A	94.4	95.7	96.4					
9903008-01A	89.3	90.7	96.6					
9903009-01A	94.4	95.9	96.9					
9903009-02A	94.2	96.3	96.4					
9903010-01A	92.5	97.3	94.5					
9903013-01A	93.6	94.8	95.6					
CCV1 QC0606/07	93.8	96.4	96.1					
CCV2 QC0606/07	93.8	96.4	95.8					
CCV3 QC0606/07	93.5	94.6	95.4					
LCS WATER	93.4	96.4	95.4					
MBI	94.2	96.3	96.6					

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	84-100
4BCBZ	= 4-Bromochlorobenzene	87-105
FLBZ	= Fluorobenzene	87-99

* Surrogate recovery outside acceptance limits



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Page: 1 of 1

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client



Date: _____

Page: _____ of _____

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OFF: (505) 325-5667



LAB: (505) 325-1556

June 17, 1999

Larry Trujillo
Conoco, Inc.
3315 Bloomfield Hwy
Farmington, NM 87401
TEL: (505) 327-9557
FAX (505) 324-5825

RE: 4-1372; Farmington Com 1

Order No.: 9906021

Dear Larry Trujillo,

On Site Technologies, LTD. received 3 samples on 6/7/99 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

Aromatic Volatiles by GC/PID (SW8021B)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read "David Cox", is written over a horizontal line.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 17-Jun-99

CLIENT: Conoco, Inc.
Project: 4-1372; Farmington Com 1
Lab Order: 9906021

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 17-Jun-99

Client:	Conoco, Inc.	Client Sample Info:	Farmington Com 1
Work Order:	9906021	Client Sample ID:	MW-3
Lab ID:	9906021-01A	Matrix:	AQUEOUS
Project:	4-1372; Farmington Com 1	Collection Date:	6/7/99 1:20:00 PM
		COC Record:	10187

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DC		
Benzene	ND	0.5		µg/L	1	6/16/99
Toluene	ND	0.5		µg/L	1	6/16/99
Ethylbenzene	ND	0.5		µg/L	1	6/16/99
m,p-Xylene	ND	1		µg/L	1	6/16/99
o-Xylene	ND	0.5		µg/L	1	6/16/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 17-Jun-99

Client:	Conoco, Inc.	Client Sample Info:	Farmington Com 1
Work Order:	9906021	Client Sample ID:	MW-2
Lab ID:	9906021-02A	Matrix:	AQUEOUS
Project:	4-1372; Farmington Com 1	Collection Date:	6/7/99 1:30:00 PM
		COC Record:	10187

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DC		
Benzene	ND	0.5		µg/L	1	6/16/99
Toluene	ND	0.5		µg/L	1	6/16/99
Ethylbenzene	ND	0.5		µg/L	1	6/16/99
m,p-Xylene	ND	1		µg/L	1	6/16/99
o-Xylene	ND	0.5		µg/L	1	6/16/99

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr - Surrogate

1 of 1

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 17-Jun-99

Client:	Conoco, Inc.	Client Sample Info:	Farmington Com 1
Work Order:	9906021	Client Sample ID:	MW-1
Lab ID:	9906021-03A	Matrix:	AQUEOUS
Project:	4-1372; Farmington Com 1	Collection Date:	6/7/99 1:40:00 PM
		COC Record:	10187

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DC		
Benzene	ND	0.5		µg/L	1	6/16/99
Toluene	ND	0.5		µg/L	1	6/16/99
Ethylbenzene	ND	0.5		µg/L	1	6/16/99
m,p-Xylene	ND	1		µg/L	1	6/16/99
o-Xylene	ND	0.5		µg/L	1	6/16/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

1 of 1

On Site Technologies, LTD.

Date: 17-Jun-99

CLIENT: Conoco, Inc.

Work Order: 9906021

Project: 4-1372; Farmington Com 1

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_990616	Test Code: SW8021B	Units: µg/L	Analysis Date 6/16/99	Prep Date:						
Client ID:	9906021	Run ID: GC-1_990616A		SeqNo: 16005							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	.0555	0.5									J
Toluene	.1036	0.5									J

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 17-Jun-99

CLIENT: Conoco, Inc.

Work Order: 9906021

Project: 4-1372; Farmington Corn 1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 9906015-24AMS		Batch ID: GC-1_990616		Test Code: SW8021B		Units: µg/L		Analysis Date 6/16/99				Prep Date:	
Client ID:		9906021		Run ID:		GC-1_990616A		SeqNo: 16006					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Benzene	6491	50	4000	2480	100.3%	73	115						
Ethylbenzene	4512	50	4000	189.1	108.1%	74	117						
m,p-Xylene	9582	100	8000	1256	104.1%	76	112						
Methyl tert-Butyl Ether	4626	100	4000	522.1	102.6%	62	122						
o-Xylene	4506	50	4000	147.5	109.0%	83	112						
Toluene	4681	50	4000	473	105.2%	71	120						

Sample ID: 9906015-24AMSD		Batch ID: GC-1_990616		Test Code: SW8021B		Units: µg/L		Analysis Date 6/16/99		Prep Date:	
Client ID:		9906021		Run ID: GC-1_990616A				SeqNo: 16007			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	6302	50	4000	2480	95.6%	73	115	6491	2.9%	8	
Ethylbenzene	4388	50	4000	189.1	105.0%	74	117	4512	2.8%	9	
m,p-Xylene	9316	100	8000	1256	100.8%	76	112	9582	2.8%	9	
Methyl tert-Butyl Ether	4536	100	4000	522.1	100.4%	62	122	4626	2.0%	7	
o-Xylene	4389	50	4000	147.5	106.0%	83	112	4506	2.6%	9	
Toluene	4542	50	4000	473	101.7%	71	120	4681	3.0%	9	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 17-Jun-99

CLIENT: Conoco, Inc.

Work Order: 9906021

Project: 4-1372; Farmington Com 1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER		Batch ID: GC-1_990616		Test Code: SW8021B		Units: µg/L		Analysis Date 6/16/99		Prep Date:	
Client ID:		9906021		Run ID:		GC-1_990616A		SeqNo: 16004			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.35	0.5	40	0	98.4%	84	110				
Ethylbenzene	42.58	0.5	40	0	106.5%	86	113				
m,p-Xylene	82.73	1	80	0	103.4%	81	114				
Methyl tert-Butyl Ether	39.42	1	40	0	98.5%	69	129				
o-Xylene	42.84	0.5	40	0.0555	107.0%	86	112				
Toluene	41.4	0.5	40	0.1036	103.2%	85	111				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 17-Jun-99

CLIENT: Conoco, Inc.

Work Order: 9906021

Project: 4-1372; Farmington Com 1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 BTEX_9902		Batch ID: GC-1_990616	Test Code: SW8021B	Units: µg/L		Analysis Date 6/16/99		Prep Date:	
Client ID: 9906021		Run ID: GC-1_990616A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	SeqNo: 16001
Analyte	Result								
Benzene	20.67		0.5	20	0	103.3%	85	115	
Ethylbenzene	22.1		0.5	20	0	110.5%	85	115	
m,p-Xylene	43.18		1	40	0	107.9%	85	115	
Methyl tert-Butyl Ether	20.92		1	20	0	104.6%	85	115	
o-Xylene	22.22		0.5	20	0	111.1%	85	115	
Toluene	21.55		0.5	20	0	107.7%	85	115	
1,4-Difluorobenzene	93.71		0	100	0	93.7%	86	100	
4-Bromochlorobenzene	94.73		0	100	0	94.7%	90	104	
Fluorobenzene	95.93		0	100	0	95.9%	89	101	

Sample ID: CCV2 BTEX_9902		Batch ID: GC-1_990616	Test Code: SW8021B	Units: µg/L		Analysis Date 6/16/99		Prep Date:	
Client ID: 9906021		Run ID: GC-1_990616A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	SeqNo: 16002
Analyte	Result								
Benzene	20.87		0.5	20	0	104.4%	85	115	
Ethylbenzene	22.19		0.5	20	0	110.9%	85	115	
m,p-Xylene	43.09		1	40	0	107.7%	85	115	
Methyl tert-Butyl Ether	21.5		1	20	0	107.5%	85	115	
o-Xylene	22.33		0.5	20	0	111.7%	85	115	
Toluene	21.68		0.5	20	0	108.4%	85	115	
1,4-Difluorobenzene	94.8		0	100	0	94.8%	86	100	
4-Bromochlorobenzene	94.21		0	100	0	94.2%	90	104	
Fluorobenzene	97.65		0	100	0	97.7%	89	101	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Conoco, Inc.
Work Order: 9906021
Project: 4-1372; Farmington Com 1

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

Sample ID: CCV3 BTEX_9902		Batch ID: GC-1_990616	Test Code: SW8021B	Units: µg/L		Analysis Date 6/16/99		Prep Date:					
Client ID: 9906021		Run ID: GC-1_990616A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	SeqNo: 16003	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result												
Benzene	40.95	0.5	40	0		102.4%	85	115					
Ethylbenzene	43.87	0.5	40	0		109.7%	85	115					
m,p-Xylene	84.87	1	80	0		106.1%	85	115					
Methyl tert-Butyl Ether	42.23	1	40	0		105.6%	85	115					
o-Xylene	44.17	0.5	40	0		110.4%	85	115					
Toluene	42.89	0.5	40	0		107.2%	85	115					
1,4-Difluorobenzene	93.9	0	100	0		93.9%	86	100					
4-Bromochlorobenzene	94.74	0	100	0		94.7%	90	104					
Fluorobenzene	96.97	0	100	0		97.0%	89	101					

Qualifiers:
 ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

2 of 2

On Site Technologies, LTD.

Date: 17-Jun-99

CLIENT: Conoco, Inc.
Work Order: 9906021
Project: 4-1372; Farmington Com 1
Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ					
9906015-17A	94.9	94.1	98.6					
9906015-18A	94.9	94.6	98.6					
9906015-19A	95.2	94.3	98.9					
9906015-20A	95.1	96.4	98.2					
9906015-21A	95.1	95.7	98.6					
9906015-22A	94.5	93.9	98					
9906015-23A	93.7	95.6	96.6					
9906015-24A	94.6	93.8	97.4					
9906015-24AMS	93.6	95.3	96.5					
9906015-24AMSD	93.6	95.6	96.5					
9906015-25A	91	94.9	94.2					
9906015-26A	95.1	94.8	98.8					
9906015-27A	95.3	94.3	96.5					
9906018-01A	94.6	95.1	98.7					
9906019-01A	95.5	95.2	98.2					
9906021-01A	94.9	95.4	98.5					
9906021-02A	95.8	94.9	98.6					
9906021-03A	95.4	95.3	98.6					
9906022-01A	89.9	91.7	95.6					
9906023-01A	89	87.1 *	91.5					
9906049-01A	95.5	94.9	98.8					
CCV1 BTEX_99020	93.7	94.7	95.9					
CCV2 BTEX_99020	94.8	94.2	97.6					
CCV3 BTEX_99020	93.9	94.7	97					
LCS WATER	93.8	95	96.8					
MB1	94.9	94.4	96.8					

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	86-100
4BCBZ	= 4-Bromochlorobenzene	90-104
FLBZ	= Fluorobenzene	89-101

* Surrogate recovery outside acceptance limits



Date:

Page:

612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client



Date: _____
Page: _____ of _____

Distribution:	White - On Site	Yellow - LAB	Pink - Sampler	Goldenrod - Client
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OFF: (505) 325-5667



LAB: (505) 325-1556

September 21, 1999

Larry Trujillo
Conoco, Inc.
3315 Bloomfield Hwy
Farmington, NM 87401
TEL: (505) 327-9557
FAX (505) 324-5825

RE: Farmington Com-1; 4-1372

Order No.: 9909048

Dear Larry Trujillo,

On Site Technologies, LTD. received 3 samples on 9/14/99 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
Aromatic Volatiles by GC/PID (SW8021B)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in dark ink, appearing to read 'David Cox', is written over a horizontal line.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 21-Sep-99

CLIENT: Conoco, Inc.
Project: Farmington Com-1; 4-1372
Lab Order: 9909048

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 21-Sep-99

Client:	Conoco, Inc.	Client Sample Info:	Farmington Com-1
Work Order:	9909048	Client Sample ID:	MW-3
Lab ID:	9909048-01A	Matrix:	AQUEOUS
Project:	Farmington Com-1; 4-1372	Collection Date:	9/14/99 10:50:00 AM
		COC Record:	10317

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DM		
Benzene	ND	0.5		µg/L	1	9/20/99
Toluene	ND	0.5		µg/L	1	9/20/99
Ethylbenzene	ND	0.5		µg/L	1	9/20/99
m,p-Xylene	ND	1		µg/L	1	9/20/99
o-Xylene	ND	0.5		µg/L	1	9/20/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 21-Sep-99

Client:	Conoco, Inc.	Client Sample Info:	Farmington Com-1
Work Order:	9909048	Client Sample ID:	MW-2
Lab ID:	9909048-02A	Matrix:	AQUEOUS
Project:	Farmington Com-1; 4-1372	Collection Date:	9/14/99 11:12:00 AM
		COC Record:	10317

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DM		
Benzene	ND	0.5		µg/L	1	9/20/99
Toluene	1	0.5		µg/L	1	9/20/99
Ethylbenzene	ND	0.5		µg/L	1	9/20/99
m,p-Xylene	ND	1		µg/L	1	9/20/99
o-Xylene	ND	0.5		µg/L	1	9/20/99

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 21-Sep-99

Client:	Conoco, Inc.	Client Sample Info:	Farmington Com-1
Work Order:	9909048	Client Sample ID:	MW-1
Lab ID:	9909048-03A	Matrix:	AQUEOUS
Project:	Farmington Com-1; 4-1372	Collection Date:	9/14/99 11:25:00 AM
		COC Record:	10317

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DM		
Benzene	ND	0.5		µg/L	1	9/20/99
Toluene	1.2	0.5		µg/L	1	9/20/99
Ethylbenzene	ND	0.5		µg/L	1	9/20/99
m,p-Xylene	ND	1		µg/L	1	9/20/99
o-Xylene	ND	0.5		µg/L	1	9/20/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 21-Sep-99

CLIENT: Conoco, Inc.

Work Order: 9909048

Project: Farmington Com-1; 4-1372

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_990920	Test Code: SW8021B	Units: µg/L	Analysis Date: 9/20/99	Prep Date:
Client ID:	9909048	Run ID: GC-1_990920A		SeqNo: 19776	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	.1348	0.5			J
Ethylbenzene	.1017	0.5			J
m,p-Xylene	.1836	1			J
Methyl tert-Butyl Ether	ND	1			
o-Xylene	.0895	0.5			J
Toluene	.1756	0.5			J

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 21-Sep-99

CLIENT: Conoco, Inc.

Work Order: 9909048

Project: Farmington Com-1; 4-1372

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 9909035-22AMS		Batch ID: GC-1_990920		Test Code: SW8021B		Units: µg/L		Analysis Date: 9/20/99		Prep Date:	
Client ID: 9909048		Run ID: GC-1_990920A		SeqNo: 19777							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	945.4	5	400	600.5	86.2%	80	116				
Ethylbenzene	415.9	5	400	20.78	98.8%	80	118				
m,p-Xylene	749	10	800	5.711	92.9%	77	116				
Methyl tert-Butyl Ether	494.3	10	400	73.44	105.2%	62	122				
o-Xylene	397.6	5	400	1.036	99.1%	83	117				
Toluene	400	5	400	1.024	99.8%	80	116				

Sample ID: 9909035-22AMSD		Batch ID: GC-1_990920		Test Code: SW8021B		Units: µg/L		Analysis Date: 9/20/99		Prep Date:	
Client ID: 9909048		Run ID: GC-1_990920A		SeqNo: 19778							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	928.3	5	400	600.5	81.9%	80	116	945.4	1.8%	7	
Ethylbenzene	408.6	5	400	20.78	97.0%	80	118	415.9	1.8%	7	
m,p-Xylene	736.8	10	800	5.711	91.4%	77	116	749	1.6%	7	
Methyl tert-Butyl Ether	498.1	10	400	73.44	106.2%	62	122	494.3	0.8%	7	
o-Xylene	393.2	5	400	1.036	98.1%	83	117	397.6	1.1%	6	
Toluene	393.8	5	400	1.024	98.2%	80	116	400	1.6%	6	

Qualifiers:

NID - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 21-Sep-99

CLIENT: Conoco, Inc.

Work Order: 9909048

Project: Farmington Com-1; 4-1372

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER		Batch ID: GC-1_990920	Test Code: SW8021B	Units: µg/L	Analysis Date: 9/20/99		Prep Date:				
Client ID:		9909048	Run ID: GC-1_990920A		SeqNo: 19775						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.58	0.5	40	0.1348	101.1%	87	119				
Ethylbenzene	40.67	0.5	40	0.1017	101.4%	89	117				
m,p-Xylene	75.85	1	80	0.1836	94.6%	88	114				
Methyl tert-Butyl Ether	40.49	1	40	0	101.2%	69	129				
o-Xylene	40.31	0.5	40	0.0895	100.5%	90	116				
Toluene	40.45	0.5	40	0.1756	100.7%	90	115				

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 21-Sep-99

CLIENT: Conoco, Inc.
Work Order: 9909048
Project: Farmington Com-1; 4-1372

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 BTEX_9906		Batch ID: GC-1_990920	Test Code: SW8021B	Units: µg/L	Analysis Date: 9/20/99		Prep Date:	
Client ID: 9909048		Run ID: GC-1_990920A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							
Benzene	21.41		0.5	20	0	107.1%	85	115
Ethylbenzene	21.58		0.5	20	0	107.9%	85	115
m,p-Xylene	40.41		1	40	0	101.0%	85	115
Methyl tert-Butyl Ether	21.27		1	20	0	106.4%	85	115
o-Xylene	21.38		0.5	20	0	106.9%	85	115
Toluene	21.23		0.5	20	0	106.1%	85	115
1,4-Difluorobenzene	93.75		0	100	0	93.8%	80	120
4-Bromochlorobenzene	93.41		0	100	0	93.4%	80	120
Fluorobenzene	92		0	100	0	92.0%	80	120

Sample ID: CCV2 BTEX_9906		Batch ID: GC-1_990920	Test Code: SW8021B	Units: µg/L	Analysis Date: 9/20/99		Prep Date:	
Client ID: 9909048		Run ID: GC-1_990920A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							
Benzene	20.2		0.5	20	0	101.0%	85	115
Ethylbenzene	20.39		0.5	20	0	101.9%	85	115
m,p-Xylene	38.38		1	40	0	95.9%	85	115
Methyl tert-Butyl Ether	21.36		1	20	0	106.8%	85	115
o-Xylene	20.42		0.5	20	0	102.1%	85	115
Toluene	20.2		0.5	20	0	101.0%	85	115
1,4-Difluorobenzene	93.99		0	100	0	94.0%	80	120
4-Bromochlorobenzene	88.76		0	100	0	88.8%	80	120
Fluorobenzene	92.64		0	100	0	92.6%	80	120

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Conoco, Inc.
Work Order: 9909048
Project: Farmington Com-1; 4-1372

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

Sample ID: CCV3 BTEX_9906		Batch ID: GC-1_990920		Test Code: SW8021B		Units: µg/L		Analysis Date: 9/20/99		Prep Date:	
Client ID:		9909048		Run ID:		GC-1_990920A		SeqNo: 19774			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.04	0.5	20	0	100.2%	85	115				
Ethylbenzene	20.37	0.5	20	0	101.9%	85	115				
m,p-Xylene	38.48	1	40	0	96.2%	85	115				
Methyl tert-Butyl Ether	20.26	1	20	0	101.3%	85	115				
o-Xylene	21.01	0.5	20	0	105.0%	85	115				
Toluene	20.24	0.5	20	0	101.2%	85	115				
1,4-Difluorobenzene	94.52	0	100	0	94.5%	80	120				
4-Bromochlorobenzene	86.54	0	100	0	86.5%	80	120				
Fluorobenzene	92.63	0	100	0	92.6%	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

2 of 2

On Site Technologies, LTD.

Date: 21-Sep-99

CLIENT: Conoco, Inc.
Work Order: 9909048
Project: Farmington Com-1; 4-1372
Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ					
9909035-22A	91.9	91.7	90.4					
9909035-22AMS	92.4	90.6	90.8					
9909035-22AMSD	92.6	90.6	91.1					
9909035-24A	93.4	85.9	92.2					
9909041-02A	90.8	84.8	89.9					
9909042-01B	94.5	93.8	93.1					
9909042-02B	94	92.5	92.8					
9909042-03B	93.5	91.3	93.7					
9909042-04B	94.1	92.2	93.5					
9909042-05B	94.2	91.4	93.4					
9909046-01A	94.1	89.5	92.3					
9909047-01A	91.7	81.8	92.6					
9909048-01A	94.7	91.2	93.5					
9909048-02A	95.2	91.3	93.7					
9909048-03A	94.2	92.2	93.5					
9909049-01B	96.1	86.8	94.4					
9909054-01A	94.3	87.9	93					
9909054-02A	94.7	88.7	93.8					
9909054-03A	95.1	89.6	94					
9909054-04A	95.3	88.5	94.4					
9909054-05A	94.8	85.8	93.2					
CCV1 BTEX_99061	93.8	93.4	92					
CCV2 BTEX_99061	94	88.8	92.6					
CCV3 BTEX_99061	94.5	86.5	92.6					
LCS WATER	93	93.5	91.4					
MB1	94.2	93.1	93					

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	80-120
4BCBZ	= 4-Bromochlorobenzene	80-120
FLBZ	= Fluorobenzene	80-120

* Surrogate recovery outside acceptance limits



CHAIN OF CUSTODY RECORD

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LAB: (505) 325-5667 • FAX: (505) 327-1496

Date:

Page:

[illegible]

Page: of

Purchase Order No.:

**SEND
INVOICE
TO**

Name		
Company		Dept.
Address		
City, State, Zip		

PROJECT LOCATION:

SAMPLER'S SIGNATURE:

SAMPLE IDENTIFICATION

SAMPLE			
DATE	TIME	MATRIX	PRES.

Relinquished by:

Relinquished by:

Relinquished by:

Method of Shipment:

Authorized by:

Date _____

(Client Signature Must Accompany Request)

REPORT RESULTS TO

Project No.

Name

Company

Mailing Address

City: State: Zip:

Telephone No.

Telefax No.:

ANALYSIS REQUESTED

Number of Containers

LAB 10

Received by:

Received by:

Received by:

Rush

-48 Hours

10 Working Days

By Date

Special Instructions / Remarks:

Date _____

(Client Signature Must Accompany Request)

Distribution:	White - On Site	Yellow - 1 AB	Pink - Sampler	Goldenrod - Client
---------------	-----------------	---------------	----------------	--------------------

To Re-order Call 325-9600 or Fax 325-9764 **alphaGraphics**, FORM # 01

OFF: (505) 325-5667



LAB: (505) 325-1556

December 30, 1999

Larry Trujillo
On Site Technologies Limited
612 E. Murray Drive
P.O. Box 2606
Farmington, NM 87499
TEL: (505) 325-5667
FAX (505) 327-1496

RE: 4-1372; Farmington Com 1

Order No.: 9912023

Dear Larry Trujillo,

On Site Technologies, LTD. received 1 sample on 12/16/1999 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

Aromatic Volatiles by GC/PID (SW8021B)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to be 'David Cox', written over a horizontal line.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 30-Dec-99

CLIENT: On Site Technologies Limited
Project: 4-1372; Farmington Com 1
Lab Order: 9912023

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 30-Dec-99

Client:	On Site Technologies Limited	Client Sample Info:	Farmington Com 1
Work Order:	9912023	Client Sample ID:	MW-3
Lab ID:	9912023-01A	Matrix:	AQUEOUS
Project:	4-1372; Farmington Com 1	Collection Date:	12/16/1999 10:00:00 AM
		COC Record:	10450

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DM		
Benzene	ND	0.5		µg/L	1	12/17/1999
Toluene	ND	0.5		µg/L	1	12/17/1999
Ethylbenzene	ND	0.5		µg/L	1	12/17/1999
m,p-Xylene	ND	1		µg/L	1	12/17/1999
o-Xylene	ND	0.5		µg/L	1	12/17/1999

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 30-Dec-99

CLIENT: On Site Technologies Limited
Work Order: 9912023
Project: 4-1372; Farmington Com 1

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_991217	Test Code: SW8021B	Units: µg/L	Analysis Date: 12/17/1999	Prep Date:
Client ID:	9912023	Run ID: GC-1_991217A		SeqNo: 22149	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	.2023	0.5			J
Ethylbenzene	.2647	0.5			J
m,p-Xylene	.3793	1			J
Methyl tert-Butyl Ether	.2003	1			J
o-Xylene	.1475	0.5			J
Toluene	.2826	0.5			J

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 30-Dec-99

CLIENT: On Site Technologies Limited
Work Order: 9912023
Project: 4-1372; Farmington Com 1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 9912011-04AMS		Batch ID: GC-1_991217	Test Code: SW8021B	Units: µg/L	Analysis Date 12/17/1999		Prep Date:
Client ID: 9912023		Run ID: GC-1_991217A	PQL	SPK value	SPK Ref Val	%REC	SeqNo: 22150
Analyte	Result						
Benzene	2856		25	2000	902.8	97.7%	80 116
Ethylbenzene	2379		25	2000	378.2	100.1%	80 118
m,p-Xylene	6200		50	4000	2548	91.3%	77 116
Methyl tert-Butyl Ether	2152		50	2000	25	106.4%	62 122
o-Xylene	2604		25	2000	589.5	100.7%	83 117
Toluene	5240		25	2000	3637	80.2%	80 116

Sample ID: 9912011-04AMSD		Batch ID: GC-1_991217	Test Code: SW8021B	Units: µg/L	Analysis Date 12/17/1999		Prep Date:
Client ID: 9912023		Run ID: GC-1_991217A	PQL	SPK value	SPK Ref Val	%REC	SeqNo: 22151
Analyte	Result						
Benzene	2824		25	2000	902.8	96.1%	80 116
Ethylbenzene	2358		25	2000	378.2	99.0%	80 118
m,p-Xylene	6145		50	4000	2548	89.9%	77 116
Methyl tert-Butyl Ether	2153		50	2000	25	106.4%	62 122
o-Xylene	2573		25	2000	589.5	99.2%	83 117
Toluene	5183		25	2000	3637	77.3%	80 116

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 30-Dec-99

CLIENT: On Site Technologies Limited
Work Order: 9912023
Project: 4-1372; Farmington Com 1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER		Batch ID: GC-1_991217	Test Code: SW8021B	Units: µg/L	Analysis Date 12/17/1999		Prep Date:
Client ID: 9912023		Run ID: GC-1_991217A	PQL	SPK value	SPK Ref Val	%REC	SeqNo: 22148
Analyte	Result						
Benzene	41.13		0.5	40	0.2023	102.3%	87 119
Ethylbenzene	41.36		0.5	40	0.2647	102.7%	89 117
m,p-Xylene	79.38		1	80	0.3793	98.7%	88 114
Methyl tert-Butyl Ether	42.08		1	40	0.2003	104.7%	69 129
o-Xylene	41.54		0.5	40	0.1475	103.5%	90 116
Toluene	41.38		0.5	40	0.2826	102.7%	90 115

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

CLIENT: On Site Technologies Limited
Work Order: 9912023
Project: 4-1372; Farmington Com I

Date: 30-Dec-99

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 BTEX_9910		Batch ID: GC-1_991217	Test Code: SW8021B	Units: µg/L		Analysis Date 12/17/1999			Prep Date:				
Client ID:		9912023	Run ID: GC-1_991217A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result												
Benzene	21.98		0.5	20	0	109.9%	85	115					
Ethylbenzene	22.56		0.5	20	0	112.8%	85	115					
m,p-Xylene	42.98		1	40	0	107.5%	85	115					
Methyl tert-Butyl Ether	22.2		1	20	0	111.0%	85	115					
o-Xylene	22.53		0.5	20	0	112.7%	85	115					
Toluene	22.32		0.5	20	0	111.6%	85	115					
1,4-Difluorobenzene	89.59		0	100	0	89.6%	80	120					
4-Bromochlorobenzene	89.23		0	100	0	89.2%	80	120					
Fluorobenzene	87.38		0	100	0	87.4%	80	120					

Sample ID: CCV2 BTEX_9910		Batch ID: GC-1_991217	Test Code: SW8021B	Units: µg/L		Analysis Date 12/17/1999			Prep Date:			
Client ID:		Run ID:	GC-1_991217A	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result	PQL										
Benzene	20.24	0.5		20	0	101.2%	85	115				
Ethylbenzene	20.89	0.5		20	0	104.4%	85	115				
m,p-Xylene	39.68	1		40	0	99.2%	85	115				
Methyl tert-Butyl Ether	21.5	1		20	0	107.5%	85	115				
o-Xylene	21.16	0.5		20	0	105.8%	85	115				
Toluene	20.7	0.5		20	0	103.5%	85	115				
1,4-Difluorobenzene	89.13	0		100	0	89.1%	80	120				
4-Bromochlorobenzene	90.68	0		100	0	90.7%	80	120				
Fluorobenzene	87.23	0		100	0	87.2%	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: On Site Technologies Limited
Work Order: 9912023
Project: 4-1372; Farmington Com I

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: CCV3 BTEX_9910		Batch ID: GC-1_991217	Test Code: SW8021B	Units: µg/L	Analysis Date 12/17/1999		Prep Date:	
Client ID: 9912023		Run ID: GC-1_991217A	PQL	SPK value	SPK Ref Val	%REC	SeqNo: 22147	
Analyte	Result						LowLimit	HighLimit
Benzene	20.86	0.5	20	0	104.3%	85	115	
Ethylbenzene	21.4	0.5	20	0	107.0%	85	115	
m,p-Xylene	40.88	1	40	0	102.2%	85	115	
Methyl tert-Butyl Ether	22.24	1	20	0	111.2%	85	115	
o-Xylene	21.99	0.5	20	0	109.9%	85	115	
Toluene	21.48	0.5	20	0	107.4%	85	115	
1,4-Difluorobenzene	88.81	0	100	0	88.8%	80	120	
4-Bromochlorobenzene	90.88	0	100	0	90.9%	80	120	
Fluorobenzene	87.2	0	100	0	87.2%	80	120	
						RPD Ref Val	%RPD	RPDLimit
								Qual

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 30-Dec-99

CLIENT: On Site Technologies Limited
Work Order: 9912023
Project: 4-1372; Farmington Com 1
Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ					
9912011-04A	88.1	89.7	86.5					
9912011-04AMS	87.4	89.8	85.9					
9912011-04AMSD	87.6	89.7	85.6					
9912012-10A	91.4	91.4	92.7					
9912012-13A	86.4	87.8	87					
9912012-15A	89.8	88.5	87.7					
9912012-17A	89.9	90	87.9					
9912012-18A	89.4	89.7	88					
9912013-01A	88.5	89.3	86.8					
9912014-01A	89.8	89.9	87.8					
9912016-01A	86.2	88.4	86.6					
9912017-01A	83.2	84.3	82.4					
9912018-01A	89.6	90	88.1					
9912018-02A	90	90	88					
9912018-03A	89.8	90.2	87.9					
9912018-04A	89.9	90.1	88					
9912018-05A	90.3	89.5	88					
9912022-01A	89.5	90.2	88					
9912023-01A	90.2	90.5	87.9					
CCV1 BTEX_99100	89.6	89.2	87.4					
CCV2 BTEX_99100	89.1	90.7	87.2					
CCV3 BTEX_99100	88.8	90.9	87.2					
LCS WATER	89.1	90.5	86.7					
MB1	89.8	90.2	88.1					

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	80-120
4BCBZ	= 4-Bromochlorobenzene	80-120
FLBZ	= Fluorobenzene	80-120

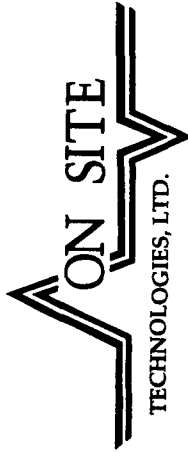
* Surrogate recovery outside acceptance limits



Page: _____ of _____

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[illegible]



CHAIN OF CUSTODY RECORD

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LAB: (505) 325-5667 • FAX: (505) 327-1496

Date: _____

Page: _____ of _____

Purchase Order No.:		Project No.:		Name		Title			
SEND INVOICE TO		Name		Company					
Address		Company		Mailing Address					
City, State, Zip		Address		City, State, Zip					
PROJECT LOCATION:		City, State, Zip		Telephone No.		Telefax No.			
SAMPLER'S SIGNATURE:		REPORT RESULTS TO		ANALYSIS REQUESTED					
SAMPLE IDENTIFICATION		Number of Containers							
DATE		TIME						LAB ID	
DATE		TIME						LAB ID	
DATE		TIME						LAB ID	
DATE		TIME						LAB ID	
DATE		TIME						LAB ID	
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DATE		TIME						LAB ID	
Relinquished by:		Date/Time		Received by:		Date/Time			
Relinquished by:		Date/Time		Received by:		Date/Time			
Relinquished by:		Date/Time		Received by:		Date/Time			
Method of Shipment:		Rush		24-48 Hours		10 Working Days			
Authorized by:		Date		Special Instructions / Remarks:					
(Client Signature Must Accompany Request)									

OFF: (505) 325-5667



LAB: (505) 325-1556

December 30, 1999

Larry Trujillo
On Site Technologies Limited
612 E. Murray Drive
P.O. Box 2606
Farmington, NM 87499
TEL: (505) 325-5667
FAX (505) 327-1496

RE: 4-1372; Farmington Com 1

Order No.: 9912020

Dear Larry Trujillo,

On Site Technologies, LTD. received 2 samples on 12/15/1999 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
Aromatic Volatiles by GC/PID (SW8021B)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to be "David Cox", written over a horizontal line.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 30-Dec-99

CLIENT: On Site Technologies Limited

Project: 4-1372; Farmington Com 1

Lab Order: 9912020

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 30-Dec-99

Client:	On Site Technologies Limited	Client Sample Info:	Farmington Com 1
Work Order:	9912020	Client Sample ID:	MW-2
Lab ID:	9912020-01A	Matrix:	AQUEOUS
Project:	4-1372; Farmington Com 1	Collection Date:	12/15/1999 9:50:00 AM
		COC Record:	10447

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DM		
Benzene	ND	0.5		µg/L	1	12/16/1999
Toluene	0.9	0.5		µg/L	1	12/16/1999
Ethylbenzene	ND	0.5		µg/L	1	12/16/1999
m,p-Xylene	ND	1		µg/L	1	12/16/1999
o-Xylene	ND	0.5		µg/L	1	12/16/1999

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 30-Dec-99

Client:	On Site Technologies Limited	Client Sample Info:	Farmington Com 1
Work Order:	9912020	Client Sample ID:	MW-1
Lab ID:	9912020-02A	Matrix:	AQUEOUS
Project:	4-1372; Farmington Com 1	Collection Date:	12/15/1999 9:55:00 AM
		COC Record:	10447

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DM		
Benzene	ND	0.5		µg/L	1	12/16/1999
Toluene	0.7	0.5		µg/L	1	12/16/1999
Ethylbenzene	ND	0.5		µg/L	1	12/16/1999
m,p-Xylene	ND	1		µg/L	1	12/16/1999
o-Xylene	ND	0.5		µg/L	1	12/16/1999

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 30-Dec-99

CLIENT: On Site Technologies Limited
 Work Order: 9912020
 Project: 4-1372; Farmington Com 1

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_991216	Test Code: SW8021B	Units: µg/L	Analysis Date 12/16/1999	Prep Date:						
Client ID:	9912020	Run ID: GC-1_991216A		SeqNo: 22083							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.2061	0.5									J
Ethylbenzene	.1433	0.5									J
m,p-Xylene	.2905	1									J
Methyl tert-Butyl Ether	ND	1									
o-Xylene	.1153	0.5									J
Toluene	.332	0.5									J

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

CLIENT: On Site Technologies Limited
Work Order: 9912020
Project: 4-1372; Farmington Com 1

Date: 30-Dec-99

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 9912011-02AMS		Batch ID: GC-1_991216		Test Code: SW8021B		Units: µg/L		Analysis Date 12/16/1999		Prep Date:	
Client ID:		9912020		Run ID:		GC-1_991216A		SeqNo: 22084			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	27550	100	8000	18600	111.9%	80	116				
Ethylbenzene	9448	100	8000	1008	105.5%	80	118				
m,p-Xylene	23050	200	16000	6617	102.7%	77	116				
Methyl tert-Butyl Ether	8736	200	8000	0	109.2%	62	122				
o-Xylene	10410	100	8000	1899	106.4%	83	117				
Toluene	43960	100	8000	34280	121.1%	80	116				ES

Sample ID: 9912011-02AMS		Batch ID: GC-1_991216		Test Code: SW8021B		Units: µg/L		Analysis Date 12/16/1999		Prep Date:	
Client ID:		9912020		Run ID:		GC-1_991216A		SeqNo: 22085			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	26060	100	8000	18600	93.3%	80	116	27550	5.6%	7	
Ethylbenzene	8942	100	8000	1008	99.2%	80	118	9448	5.5%	7	
m,p-Xylene	21820	200	16000	6617	95.0%	77	116	23050	5.5%	7	
Methyl tert-Butyl Ether	8480	200	8000	0	106.0%	62	122	8736	3.0%	7	
o-Xylene	9916	100	8000	1899	100.2%	83	117	10410	4.9%	6	
Toluene	41530	100	8000	34280	90.6%	80	116	43960	5.7%	6	E

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 30-Dec-99

CLIENT: On Site Technologies Limited
 Work Order: 9912020
 Project: 4-1372; Farmington Com 1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER		Batch ID: GC-1_991216		Test Code: SW8021B		Units: µg/L		Analysis Date 12/16/1999		Prep Date:	
Client ID:		9912020		Run ID:		GC-1_991216A		SeqNo: 22082			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	42.66	0.5	40	0.2061	106.1%	87	119				
Ethylbenzene	42.5	0.5	40	0.1433	105.9%	89	117				
m,p-Xylene	81.43	1	80	0.2905	101.4%	88	114				
Methyl tert-Butyl Ether	42.9	1	40	0	107.2%	69	129				
o-Xylene	42.66	0.5	40	0.1153	106.4%	90	116				
Toluene	42.67	0.5	40	0.332	105.9%	90	115				

Qualifiers:

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S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

CLIENT: On Site Technologies Limited
Work Order: 9912020
Project: 4-1372; Farmington Com 1

Date: 30-Dec-99

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 BTEX_9910		Batch ID: GC-1_991216	Test Code: SW8021B	Units: µg/L	Analysis Date 12/16/1999		Prep Date:
Client ID:		Run ID: 9912020	PQL	SPK value	SPK Ref Val	%REC	SeqNo: 22079
Analyte	Result						
Benzene	22.11	0.5	0.5	20	0	110.6%	85
Ethylbenzene	22.76	0.5	0.5	20	0	113.8%	85
m,p-Xylene	43.25	1	1	40	0	108.1%	85
Methyl tert-Butyl Ether	21.96	1	1	20	0	109.8%	85
o-Xylene	22.74	0.5	0.5	20	0	113.7%	85
Toluene	22.51	0.5	0.5	20	0	112.6%	85
1,4-Difluorobenzene	89.66	0	0	100	0	89.7%	80
4-Bromochlorobenzene	91.36	0	0	100	0	91.4%	80
Fluorobenzene	87.25	0	0	100	0	87.2%	80

Sample ID: CCV2 BTEX_9910		Batch ID: GC-1_991216	Test Code: SW8021B	Units: µg/L	Analysis Date 12/16/1999		Prep Date:
Client ID:		Run ID: 9912020	PQL	SPK value	SPK Ref Val	%REC	SeqNo: 22080
Analyte	Result						
Benzene	21.07	0.5	0.5	20	0	105.3%	85
Ethylbenzene	21.67	0.5	0.5	20	0	108.3%	85
m,p-Xylene	41.2	1	1	40	0	103.0%	85
Methyl tert-Butyl Ether	22.22	1	1	20	0	111.1%	85
o-Xylene	21.85	0.5	0.5	20	0	109.3%	85
Toluene	21.52	0.5	0.5	20	0	107.6%	85
1,4-Difluorobenzene	89.55	0	0	100	0	89.5%	80
4-Bromochlorobenzene	90.18	0	0	100	0	90.2%	80
Fluorobenzene	87.32	0	0	100	0	87.3%	80

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: On Site Technologies Limited
Work Order: 9912020
Project: 4-1372; Farmington Com 1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV3 BTEX_9910		Batch ID: GC-1_991216	Test Code: SW8021B	Units: µg/L	Analysis Date 12/16/1999		Prep Date:	
Client ID: 9912020		Run ID: GC-1_991216A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							
Benzene	21.36		0.5	20	0	106.8%	85	115
Ethylbenzene	21.34		0.5	20	0	106.7%	85	115
m,p-Xylene	40.56		1	40	0	101.4%	85	115
Methyl tert-Butyl Ether	21.84		1	20	0	109.2%	85	115
o-Xylene	21.57		0.5	20	0	107.9%	85	115
Toluene	21.48		0.5	20	0	107.4%	85	115
1,4-Difluorobenzene	89.46		0	100	0	89.5%	80	120
4-Bromochlorobenzene	90.52		0	100	0	90.5%	80	120
Fluorobenzene	87.59		0	100	0	87.6%	80	120
							%RPD	RPDLimit
								Qual

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

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 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 30-Dec-99

CLIENT: On Site Technologies Limited
Work Order: 9912020
Project: 4-1372; Farmington Com 1
Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ					
9912008-02A	88.1	90.7	85.4					
9912008-05A	86.8	91.5	84.5					
9912011-02A	87.9	91.6	86					
9912011-02AMS	87.3	90.7	85.6					
9912011-02AMSD	87.5	91	85.7					
9912011-04A	85.2	90.2	84.2					
9912011-07A	35.5 *	36.7 *	35.2 *					
9912012-04A	90.4	90	87.9					
9912012-05A	90.6	91	88.1					
9912012-06A	90.1	91.3	88.2					
9912012-07A	89.8	90.7	88.2					
9912012-08A	90	90.6	88					
9912012-09A	90	91.1	88.1					
9912012-11A	89.4	90.6	88					
9912012-12A	90.2	90.9	88					
9912012-14A	90	90.3	88.2					
9912012-16A	89.8	91	88.1					
9912020-01A	89.6	91.1	88.4					
9912020-02A	89.5	89.8	87.8					
CCV1 BTEX_99100	89.7	91.4	87.2					
CCV2 BTEX_99100	89.5	90.2	87.3					
CCV3 BTEX_99100	89.5	90.5	87.6					
LCS WATER	89	91.3	0 *					
MB1	89.5	90.2	88.2					

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	80-120
4BCBZ	= 4-Bromochlorobenzene	80-120
FLBZ	= Fluorobenzene	80-120

* Surrogate recovery outside acceptance limits



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Page: 1 of 1

Distribution:	White - On Site	Yellow - LAB	Pink - Sampler	Goldenrod - Client
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Date: _____

Page:

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client