

1R - 372

GENERAL CORRESPONDENCE

YEAR(S):

2001

Report Date: July 19, 2001 Order Number: A01051802
 Unit M Sec 31 T 185 R38E N/A

Page Number: 1 of 1
 State of New Mexico

Summary Report

1000343
 IR 372

Report Date: July 19, 2001

Order ID Number: A01051802

Paul Sheeley
 OCD Hobbs Office
 1625 N. French Drive
 Hobbs, NM 88240

Project Number: Unit M Sec 31 T 185 R38E
 Project Name: N/A
 Project Location: State of New Mexico

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
171405	0105171450	Water	5/17/01	14:50	5/18/01
171406	0105171451	Water	5/17/01	14:51	5/18/01

This report consists of a total of 1 page(s) and is intended only as a summary of results for the sample(s) listed above.

Sample - Field Code	BTEX				
	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	M,P,O-Xylene (ppm)	Total BTEX (ppm)
171405 - 0105171450	<0.001	0.003	0.0026	<0.001	0.0056

Sample: 171406 - 0105171451

Param	Flag	Result	Units
Hydroxide Alkalinity		<1.0	mg/L as CaCo3
Carbonate Alkalinity		<1.0	mg/L as CaCo3
Bicarbonate Alkalinity		48	mg/L as CaCo3
Total Alkalinity		48	mg/L as CaCo3
Specific Conductance		474	μMHOS/cm
CL		101	mg/L
Fluoride		<1.0	mg/L
Nitrate-N		<1.0	mg/L
Sulfate		10.0	mg/L
Dissolved Calcium		20.5	mg/L
Dissolved Magnesium		8.12	mg/L
Dissolved Potassium		3.59	mg/L
Dissolved Sodium		50.4	mg/L
Total Dissolved Solids		252	mg/L
pH	1	7.0	s.u.

¹Sample run out of holding time



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Analytical and Quality Control Report

Paul Sheeley
OCD Hobbs Office
1625 N. French Drive
Hobbs, NM 88240

Report Date: July 19, 2001

Order ID Number: A01051802

Project Number: Unit M Sec 31 T 185 R38E
Project Name: N/A
Project Location: State of New Mexico

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
171405	0105171450	Water	5/17/01	14:50	5/18/01
171406	0105171451	Water	5/17/01	14:51	5/18/01

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 10 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of Trace Analysis, Inc.



Dr. Blair Leftwich, Director

Analytical Report

Sample: 171405 - 0105171450

Analysis: BTEX Analytical Method: S 8021B QC Batch: QC11376 Date Analyzed: 5/21/01
Analyst: JW Preparation Method: E 5030B Prep Batch: PB09730 Date Prepared: 5/21/01

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.001	mg/L	1	0.001
Toluene		0.003	mg/L	1	0.001
Ethylbenzene		0.0026	mg/L	1	0.001
M,P,O-Xylene		<0.001	mg/L	1	0.001
Total BTEX		0.0056	mg/L	1	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.109	mg/Kg	1	0.10	109	72 - 128
4-BFB		0.107	mg/Kg	1	0.10	107	72 - 128

Sample: 171406 - 0105171451

Analysis: Alkalinity Analytical Method: E 310.1 QC Batch: QC11576 Date Analyzed: 5/31/01
Analyst: RS Preparation Method: N/A Prep Batch: PB09911 Date Prepared: 5/31/01

Param	Flag	Result	Units	Dilution	RDL
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1	1
Bicarbonate Alkalinity		48	mg/L as CaCo3	1	4
Total Alkalinity		48	mg/L as CaCo3	1	4

Sample: 171406 - 0105171451

Analysis: Conductivity Analytical Method: SM 2510B QC Batch: QC11440 Date Analyzed: 5/23/01
Analyst: JS Preparation Method: N/A Prep Batch: PB09783 Date Prepared: 5/23/01

Param	Flag	Result	Units	Dilution	RDL
Specific Conductance		474	μMHOS/cm	1	

Sample: 171406 - 0105171451

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC11320 Date Analyzed: 5/18/01
Analyst: JS Preparation Method: N/A Prep Batch: PB09685 Date Prepared: 5/18/01

Param	Flag	Result	Units	Dilution	RDL
CL		101	mg/L	5	2
Fluoride		<1.0	mg/L	5	0.20
Nitrate-N		<1.0	mg/L	5	0.20
Sulfate		10.0	mg/L	5	2

Sample: 171406 - 0105171451

Analysis: Salts Analytical Method: S 6010B QC Batch: QC11578 Date Analyzed: 5/29/01
Analyst: LDB Preparation Method: E 3005 A Prep Batch: PB09826 Date Prepared: 5/25/01

Param	Flag	Result	Units	Dilution	RDL
Dissolved Calcium		20.5	mg/L	1	0.50
Dissolved Magnesium		8.12	mg/L	1	0.50
Dissolved Potassium		3.59	mg/L	1	0.50
Dissolved Sodium		50.4	mg/L	1	0.50

Sample: 171406 - 0105171451

Analysis: TDS Analytical Method: E 160.1 QC Batch: QC11422 Date Analyzed: 5/22/01
Analyst: JS Preparation Method: N/A Prep Batch: PB09773 Date Prepared: 5/21/01

Param	Flag	Result	Units	Dilution	RDL
Total Dissolved Solids		252	mg/L	1	10

Sample: 171406 - 0105171451

Analysis: pH Analytical Method: E 150.1 QC Batch: QC11407 Date Analyzed: 5/18/01
Analyst: RS Preparation Method: N/A Prep Batch: PB09754 Date Prepared: 5/18/01

Param	Flag	Result	Units	Dilution	RDL
pH	1	7.0	s.u.	1	1

¹Sample run out of holding time

Quality Control Report Method Blank

Method Blank QCBatch: QC11320

Param	Flag	Results	Units	Reporting Limit
CL		<2.0	mg/L	2
Fluoride		<0.2	mg/L	0.20
Nitrate-N		<0.2	mg/L	0.20
Sulfate		<2.0	mg/L	2

Method Blank QCBatch: QC11376

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.001	mg/L	0.001
Toluene		<0.001	mg/L	0.001
Ethylbenzene		<0.001	mg/L	0.001
M,P,O-Xylene		<0.001	mg/L	0.001
Total BTEX		<0.001	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		0.0985	mg/L	1	0.10	98	72 - 128
4-BFB		0.0941	mg/L	1	0.10	94	72 - 128

Method Blank QCBatch: QC11422

Param	Flag	Results	Units	Reporting Limit
Total Dissolved Solids		<10	mg/L	10

Method Blank QCBatch: QC11440

Param	Flag	Results	Units	Reporting Limit
Specific Conductance		5.18	µMHOS/cm	

Method Blank QCBatch: QC11576

Param	Flag	Results	Units	Reporting Limit
Hydroxide Alkalinity		<1.0	mg/L as CaCo3	1
Carbonate Alkalinity		<1.0	mg/L as CaCo3	1

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Param	Flag	Results	Units	Reporting Limit
Bicarbonate Alkalinity		<4.0	mg/L as CaCo3	4
Total Alkalinity		<4.0	mg/L as CaCo3	4

Method Blank QCBatch: QC11578

Param	Flag	Results	Units	Reporting Limit
Dissolved Calcium		<.5	mg/L	0.50
Dissolved Magnesium		<.5	mg/L	0.50
Dissolved Potassium		<.5	mg/L	0.50
Dissolved Sodium		<.5	mg/L	0.50

Quality Control Report Duplicate Samples

Duplicate QCBatch: QC11407

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH		9.1	9.1	s.u.	1	0	0.99

Duplicate QCBatch: QC11422

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids		16500	16300	mg/L	1	1	14

Duplicate QCBatch: QC11440

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Specific Conductance		3479	3480	µMHOS/cm	1	0	4.6

Duplicate QCBatch: QC11576

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity		<1.0		mg/L as CaCo3	1	0	7
Carbonate Alkalinity		<1.0	<1.0	mg/L as CaCo3	1	0	7
Bicarbonate Alkalinity		116	118	mg/L as CaCo3	1	1	7
Total Alkalinity		116	118	mg/L as CaCo3	1	1	7

Quality Control Report Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes QCBatch: QC11320

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
CL	11.99	11.98	mg/L	1	12.50	<2.0	95	0	90 - 110	20
Fluoride	2.34	2.43	mg/L	1	2.50	<0.2	93	3	90 - 110	20
Nitrate-N	2.43	2.45	mg/L	1	2.50	<0.2	97	0	90 - 110	20
Sulfate	12.31	12.37	mg/L	1	12.50	<2.0	98	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spikes QCBatch: QC11376

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
MTBE	0.094	0.0949	mg/L	1	0.10	<0.001	94	0	80 - 120	20
Benzene	0.0941	0.0957	mg/L	1	0.10	<0.001	94	1	80 - 120	20
Toluene	0.0932	0.0953	mg/L	1	0.10	<0.001	93	2	80 - 120	20
Ethylbenzene	0.0938	0.0958	mg/L	1	0.10	<0.001	93	2	80 - 120	20
M,P,O-Xylene	0.302	0.308	mg/L	1	0.30	<0.001	100	1	80 - 120	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
TFT	0.0967	0.0974	mg/L	1	0.10	96	97	72 - 128
4-BFB	0.0964	0.0968	mg/L	1	0.10	96	96	72 - 128

Laboratory Control Spikes QCBatch: QC11578

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Dissolved Calcium	88.4	91.1	mg/L	1	100	<.5	88	3	75 - 125	20
Dissolved Magnesium	84.6	88.6	mg/L	1	100	<.5	84	4	75 - 125	20
Dissolved Potassium	87.5	94.3	mg/L	1	100	<.5	87	7	75 - 125	20
Dissolved Sodium	92.7	90.4	mg/L	1	100	<.5	92	2	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report Matrix Spikes and Duplicate Spikes

Matrix Spikes QCBatch: QC11320

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
CL	160.47	159.76	mg/L	1	62.50	101	95	1	52 - 131	20
Fluoride	11.76	11.96	mg/L	1	12.50	<1.0	94	1	80 - 113	20
Nitrate-N	12.53	12.47	mg/L	1	12.50	<1.0	100	0	86 - 110	20
Sulfate	68.78	67.81	mg/L	1	62.50	10.0	94	1	71 - 121	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spikes QCBatch: QC11578

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Dissolved Calcium	155	152	mg/L	1	100		88	3	75 - 125	20
Dissolved Calcium	155	152	mg/L	1	100	66.5	88	3	75 - 125	20
Dissolved Magnesium	109	108	mg/L	1	100		88	1	75 - 125	20
Dissolved Magnesium	109	108	mg/L	1	100	20.9	88	1	75 - 125	20
Dissolved Potassium	98.6	97.7	mg/L	1	100		91	0	75 - 125	20
Dissolved Potassium	98.6	97.7	mg/L	1	100	7.38	91	0	75 - 125	20
Dissolved Sodium	186	180	mg/L	1	100		86	7	75 - 125	20
Dissolved Sodium	186	180	mg/L	1	100	100	86	7	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Quality Control Report Continuing Calibration Verification Standards

CCV (1) QCBatch: QC11320

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
CL		mg/L	12.50	11.97	95	90 - 110	5/18/01
Fluoride		mg/L	2.50	2.37	94	90 - 110	5/18/01
Nitrate-N		mg/L	2.50	2.41	96	90 - 110	5/18/01
Sulfate		mg/L	12.50	12.34	98	90 - 110	5/18/01

ICV (1) QCBatch: QC11320

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
CL		mg/L	12.50	11.87	94	90 - 110	5/18/01
Fluoride		mg/L	2.50	2.40	96	90 - 110	5/18/01
Nitrate-N		mg/L	2.50	2.42	96	90 - 110	5/18/01
Sulfate		mg/L	12.50	12.17	97	90 - 110	5/18/01

CCV (1) QCBatch: QC11376

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0916	91	85 - 115	5/21/01
Benzene		mg/L	0.10	0.0904	90	85 - 115	5/21/01
Toluene		mg/L	0.10	0.0901	90	85 - 115	5/21/01
Ethylbenzene		mg/L	0.10	0.0905	90	85 - 115	5/21/01
M,P,O-Xylene		mg/L	0.30	0.291	97	85 - 115	5/21/01

CCV (2) QCBatch: QC11376

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0922	92	85 - 115	5/21/01
Benzene		mg/L	0.10	0.0946	94	85 - 115	5/21/01
Toluene		mg/L	0.10	0.0949	94	85 - 115	5/21/01
Ethylbenzene		mg/L	0.10	0.0949	94	85 - 115	5/21/01
M,P,O-Xylene		mg/L	0.30	0.305	101	85 - 115	5/21/01

ICV (1) QCBatch: QC11376

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/L	0.10	0.0953	95	85 - 115	5/21/01
Benzene		mg/L	0.10	0.0934	93	85 - 115	5/21/01
Toluene		mg/L	0.10	0.0932	93	85 - 115	5/21/01
Ethylbenzene		mg/L	0.10	0.0939	93	85 - 115	5/21/01
M,P,O-Xylene		mg/L	0.30	0.302	100	85 - 115	5/21/01

ICV (1) QCBatch: QC11407

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7	7.0	100	-0.1 s.u. - +0.1 s.u.	5/18/01

CCV (1) QCBatch: QC11422

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1016	101	90 - 110	5/22/01

ICV (1) QCBatch: QC11422

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1013	101	90 - 110	5/22/01

CCV (1) QCBatch: QC11440

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		μ MHOS/cm	1412	1416	100	90 - 110	5/23/01

ICV (1) QCBatch: QC11440

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Specific Conductance		μ MHOS/cm	1411	1402	99	90 - 110	5/23/01

CCV (1) QCBatch: QC11576

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Carbonate Alkalinity		mg/L as CaCo3	0	232	0	90 - 110	5/31/01
Bicarbonate Alkalinity		mg/L as CaCo3	0	6.0	0	90 - 110	5/31/01
Total Alkalinity		mg/L as CaCo3	250	238	95	90 - 110	5/31/01

ICV (1) QCBatch: QC11576

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Carbonate Alkalinity		mg/L as CaCo3	0	227	0	90 - 110	5/31/01
Bicarbonate Alkalinity		mg/L as CaCo3	0	<4.0	0	90 - 110	5/31/01
Total Alkalinity		mg/L as CaCo3	250	227	91	90 - 110	5/31/01

CCV (1) QCBatch: QC11578

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25	25.7	102	90 - 110	5/29/01
Dissolved Magnesium		mg/L	25	24.4	97	90 - 110	5/29/01

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Potassium		mg/L	25	25.9	103	90 - 110	5/29/01
Dissolved Sodium		mg/L	25	26.5	106	90 - 110	5/29/01

ICV (1)

QCBatch: QC11578

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	25	25	100	95 - 105	5/29/01
Dissolved Magnesium		mg/L	25	24.7	98	95 - 105	5/29/01
Dissolved Potassium		mg/L	25	24.4	97	95 - 105	5/29/01
Dissolved Sodium		mg/L	25	24.8	99	95 - 105	5/29/01

Equiva Services, LLC

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TraceAnalysis, Inc.

Phone #:

ing Company Name: Oil Conservation Div Phone #: (505) 393-6161 x113

Fax #:

1625 N. French Dr. Hobbs, NM 88240
Fax #: 505/393-0720

Equiva Contact:

Equiva Contact:	Wayne Price
Paul Sheeley	

Incident #

Flowers

Project Task:

unit n, sec 31 T18S, R38E

Sampler Signature:

State of New Mexico

[illegible]

Date: / /

15.20

Received by:

Date: _____ Time: _____

1

Date: / Time:

~~Rec~~

Date: _____ Time: _____

1

Date: _____ Time: _____

Rec

Date: Time:

Abstract

Received at Laboratory, by _____ Date: _____ Time: _____
JCK: June 5, 1981 10:00a

Submission of samples constitutes agreement to Terms and Conditions listed on reverse side of COC

ORIGINAL COPY

CHAIN-OF-CUSTODY		LAB Order ID: <u>AC</u>	
ANALYSIS REQUEST (Circle or Specify Method No.)			
MTBE 8021B/602			
BTEX 8021B/602	X		
TPH 418.1/TX1005			
PAH 8270C			
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7			
TCLP Metals Ag As Ba Cd Cr Pb Se Hg			
TCLP Volatiles			
TCLP Semi Volatiles			
TCLP Pesticides			
RCI			
GC-MS Vol. 8260B/624			
GC/MS Semi. Vol. 8270C/625			
PCB's 8082/608			
Pesticides 8081A/608			
BOD, TSS, PH	X		
General Chemistry			
Turn Around Time if different from standard			
Hold			

LAB USE ONLY

Initial DN

Headspace YN

Temp 2

Log-in Review ML

Carrier # 9025913426

REMARKS:

☐ Check if special reporting limits needed.

1 L bottle contains ~700 mL

Cal 6/6/01