



Analytical **Technologies**, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107  
Phone (505) 344-3777 FAX (505) 344-4413

ENTERED



ATI I.D. 302379

March 15, 1993

New Mexico Environmental Department  
P.O. Box 26110  
Santa Fe, NM 87502

Project Name/Number: KAFB

Attention: David Morgan

On 02/24/93, Analytical Technologies, Inc. received a request to analyze **aqueous** sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

All analyses were performed by ATI, Phoenix.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Letitia Krakowski  
Assistant Project Manager

Elizabeth Proffitt  
Laboratory Manager

EP:td  
Enclosure

KAFB1288





Analytical Technologies, Inc.

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.  
PROJECT # : (NONE)  
PROJECT NAME : KAFB

DATE RECEIVED : 02/24/93

REPORT DATE : 03/15/93

ATI I.D. : 302379

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	0502	AQUEOUS	02/24/93
02	0610	AQUEOUS	02/24/93
03	TRIP BLANK	AQUEOUS	02/22/93

----- TOTALS -----

MATRIX	# SAMPLES
AQUEOUS	3

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

## GCMS - RESULTS

ATI I.D. : 30237901

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENVIRONMENTAL DEPT.	DATE SAMPLED	: 02/24/93
PROJECT #	: (NONE)	DATE RECEIVED	: 02/24/93
PROJECT NAME	: KAFB	DATE EXTRACTED	: N/A
CLIENT I.D.	: 0502	DATE ANALYZED	: 03/08/93
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	<1
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYLVINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	106
BROMOFLUOROBENZENE (%)	100
TOLUENE-D8 (%)	97

610 003



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30237901

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

610 004

## GCMS - RESULTS

ATI I.D. : 30237902

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENVIRONMENTAL DEPT.	DATE SAMPLED	: 02/24/93
PROJECT #	: (NONE)	DATE RECEIVED	: 02/24/93
PROJECT NAME	: KAFB	DATE EXTRACTED	: N/A
CLIENT I.D.	: 0610	DATE ANALYZED	: 03/08/93
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	<1
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYLVINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	103
BROMOFLUOROBENZENE (%)	100
TOLUENE-D8 (%)	97

610 005



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30237902

-----  
COMPOUNDS

-----  
RESULTS  
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NO ADDITIONAL COMPOUNDS

610 006



GCMS - RESULTS

ATI I.D. : 30237903

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.
PROJECT # : (NONE)
PROJECT NAME : KAFB
CLIENT I.D. : TRIP BLANK
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/22/93
DATE RECEIVED : 02/24/93
DATE EXTRACTED : N/A
DATE ANALYZED : 03/08/93
UNITS : UG/L
DILUTION FACTOR : 1

Table with 2 columns: COMPOUNDS and RESULTS. Lists various chemical compounds and their corresponding results, mostly showing values less than 10 or 5.

SURROGATE PERCENT RECOVERIES.

Table with 2 columns: Compound name and percentage recovery. Lists 1,2-DICHLOROETHANE-D4 (%), BROMOFLUOROBENZENE (%), and TOLUENE-D8 (%).

610 007



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30237903

-----  
COMPOUNDS

-----  
RESULTS  
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NO ADDITIONAL COMPOUNDS .





## GCMS - RESULTS

## REAGENT BLANK

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENVIRONMENTAL DEPT.	ATI I.D.	: 302379
PROJECT #	: (NONE)	DATE EXTRACTED	: 03/08/93
PROJECT NAME	: KAFB	DATE ANALYZED	: 03/08/93
CLIENT I.D.	: REAGENT BLANK	UNITS	: UG/L
		DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	<1
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYLVINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	101
BROMOFLUOROBENZENE (%)	96
TOLUENE-D8 (%)	99



QUALITY CONTROL DATA

ATI I.D. : 302379

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.
PROJECT # : (NONE)
PROJECT NAME : KAFB
REF I.D. : 30237902

DATE ANALYZED : 03/08/93
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

Table with 8 columns: COMPOUNDS, SAMPLE CONC. RESULT, SPIKED, % SPIKED SAMPLE REC., DUP. % SPIKED SAMPLE REC., RPD. Rows include 1,1-DICHLOROETHENE, TRICHLOROETHENE, CHLOROBENZENE, TOLUENE, and BENZENE.

% Recovery = (Spike Sample Result - Sample Result) / Spike Concentration X 100

RPD (Relative % Difference) = (Spiked Sample Result - Duplicate Spike Sample Result) / Average of Spiked Sample X 100



PROJECT MANAGER: David Morgan  
 COMPANY: NM ENVIRONMENT DEPT  
 ADDRESS: 1190 ST. FRANCIS DR (PO Box 26110)  
 SANTA FE NM 87502  
 PHONE: 827-2754 (DAVID MORGAN)  
 FAX: 827-2965  
 BILL TO: DAVID MORGAN  
 COMPANY: NIMED - GROUNDWATER BUREAU  
 ADDRESS: PO BOX 26110  
 SANTA FE NM 87502

**ANALYSIS REQUEST**

PETROLEUM HYDROCARBONS (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTEX/MTBE (MOD 8015/8020)	BTX/MTBE (8020)	CHLORINATED HYDROCARBONS (601/8010)	AROMATIC HYDROCARBONS (602/8020)	SDWA VOLATILES (502.1/503.1), 502.2 Reg. & Unreg.	PESTICIDES/PCB (608/8080)	HERBICIDES (615/8150)	BASE/NEUTRAL/ACID COMPOUNDS GC/MS (625/8270)	VOLATILE ORGANICS GC/MS (624/8249)	POLYNUCLEAR AROMATICS (610/8310)	SDWA PRIMARY STANDARDS - ARIZONA	SDWA SECONDARY STANDARDS - ARIZONA	SDWA PRIMARY STANDARDS - FEDERAL	SDWA SECONDARY STANDARDS - FEDERAL	THE 13 PRIORITY POLLUTANT METALS	RCRA METALS BY TOTAL DIGESTION	RCRA METALS BY TCLP (1311)	NUMBER OF CONTAINERS
0502 (2 vials)	0610	Trip Blank	12:39 water	2/24/93	14:10 water	2/24/93	AG 03			✓									2
										✓									2
																			1

**PROJECT INFORMATION**

PROJ. NO.:  
 PROJ. NAME: KA4F9  
 P.O. NO.:  
 SHIPPED VIA:  
**NO. CONTAINERS**  
**CUSTODY SEALS** (PIN/NA)  
**RECEIVED INTACT**  
**RECEIVED GOLD**

**SAMPLED & RELINQUISHED BY:**

Signature: [Signature] Time: 14:40  
 Printed Name: DAVID MORGAN Date: 2/24/93  
 Company: NIMED Phone: 827-2754

**RECEIVED BY:**

Signature: [Signature] Time: [Time]  
 Printed Name: [Name] Date: [Date]  
 Company: [Company]

**PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS**

(RUSH)  24hr  48hr  72hr  1 WEEK  2 WEEK (NORMAL)

Comments:

**RECEIVED BY (LAB)**

Signature: [Signature] Time: 14:40  
 Printed Name: [Name] Date: 2/24/93  
 Company: Analytical Technologies, Inc.

PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.

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Analytical Technologies, Inc. Albuquerque, NM

# Chain of Custody

DATE 2/24/93 PAGE 1 OF 1

NETWORK PROJECT MANAGER: BETH PROFFITT

COMPANY: **Analytical Technologies, Inc.**  
ADDRESS: 2709-D Pan American Freeway, NE  
Albuquerque, NM 87106

CLIENT PROJECT MANAGER: GW

## ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	TOX	ORGANIC LEAD	SULFIDE	SURFACTANTS (MBAS)	632/632 MOD	619/619 MOD	610/8310	8240 (TCFP 1311) ZHE	Diesel/Gasoline/BTXE/MTBE/ (MOD 8015/8020)	Volatile Organics GC/MS (624/8240)	NACE	ASBESTOS	BOD	TOTAL COLIFORM	FECAL COLIFORM	GROSS ALPHA/BETA	RADIUM 226/228	AIR - O2, CO2, METHANE	AIR/Diesel/Gasoline/BTXE/ (MOD 8015/8020)	NUMBER OF CONTAINERS
302379-1	2/24/93	1239	AO	1																				0
-2	2/24/93	1410	AO	2																				0
-3 (T.B.)	2/24/93		AO	3																				1

PROJECT INFORMATION	SAMPLE RECEIPT	RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
PROJECT NUMBER: 302379	TOTAL NUMBER OF CONTAINERS: 5	Signature: <u>[Signature]</u>	Signature: _____
PROJECT NAME: NMED	CHAIN OF CUSTODY SEALS: not B Y	Printed Name: <u>Tom Deatre</u>	Printed Name: _____
QC LEVEL: STD IV	INTACT? <u>Y</u>	Date: <u>2/24/93</u>	Date: _____
CO-REQUIRED: MS MSD BLANK	RECEIVED GOOD COND./COLD	Analytical Technologies, Inc.	Company: _____
LAB: STANDARD BUSHI	LAB NUMBER: 302379	Abuquerque	Abuquerque
DUE DATE: 3/10/93		RECEIVED BY: (LAB) 1.	RECEIVED BY: (LAB) 2.
RUSH SURCHARGE: _____		Signature: _____	Signature: <u>[Signature]</u>
CLIENT DISCOUNT: 10%		Printed Name: _____	Printed Name: <u>R. Tubeszowski</u>
		Date: _____	Date: <u>2/25/93</u>
		Company: _____	Company: <u>ATI - Phoenix</u>