

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

45-32453

August 11, 2004

Mr. Denny Foust
New Mexico Oil Conservation Division
1000 Rio Brazos Rd.
Aztec, New Mexico 87410



Re: Soil Sampling Test Results
J.W. Garrison No. 7
(G) Sec. 22 - T29N - R11W
San Juan County, New Mexico

Dear Mr. Foust:

At your request Blagg Engineering, Inc. (BEI) conducted soil sampling on and around the J.W. Garrison No. 7 well site. The purpose of the sampling and testing was to identify potential surface impacts from recent plugging and abandoning operations conducted on the well. The site inspection and soil collection was performed on July 29, 2004. Samples were submitted to Envirotech, Inc. laboratories in Farmington, New Mexico and test results were available on August 3, 2004.

Three areas at the site were included in the test program (Figure 1). Immediately adjacent to the PxA marker a four point composite was collected at a distance about 4 feet from the marker. This sample included soils that had obvious staining from the well work operations. A second four point composite sample was collected at a distance about 15 feet from the PxA marker. This sample did not contain any obvious staining. A third composite sample was collected from four low point areas south of the PxA marker near U.S. Highway 64. This sample was of soils that may have been impacted from well water flow that occurred during the plugging operations.

All of the samples were collected from the ground surface to a maximum depth of 6-inches using a sample spade. Each composite sample was placed into a 1 gallon plastic baggie and thoroughly mixed. A portion of the baggie sample was placed into a 4-ounce jar with teflon™ lined lid and stored in an ice chest with ice packs. The samples were hand delivered to Envirotech's laboratory for testing.

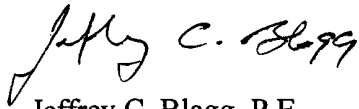
Laboratory testing included U.S. EPA Method 8015 for total petroleum hydrocarbons (TPH), U.S. EPA Method 8021 for volatile organics of benzene, toluene, ethyl-benzene and xylenes (BTEX), RCRA metals and general chemistry. Based on the test results (see attached laboratory reports), all three composite samples appear to be non-hazardous and inert. There were no metals, volatile organics or reactive properties that would identify any sample as a toxic material. The sample collected from immediately adjacent to the well head marker tested 3.3 parts per million of TPH, but this is well below the normal closure standard of 100 parts per million. There were also trace

Blagg Engineering, Inc.
Consulting Engineers

amounts of several heavy metals in all samples, but this is likely naturally occurring and not a result of the plugging operation. These test results do not indicate the presence of any surface contamination and BEI does not recommend further testing of the site.

Questions or comments concerning this transmittal may be directed to myself at (505)632-1199 (office) or (505)320-1183 (cell). We appreciate the opportunity to be of service to the NMOCD.

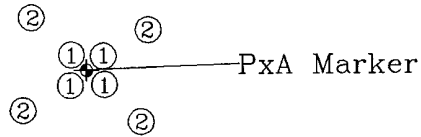
Respectfully submitted:
Blagg Engineering, Inc.



Jeffrey C. Blagg, P.E.
President

Attachment: Lab Reports
Site Diagram

cc: Bill Clark - A Plus Well Service



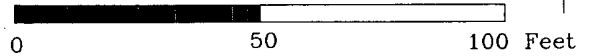
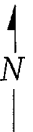
Concrete Sidewalk

U.S. Highway 64

Note: Plotted are the approximate test points for composite samples collected for the onsite investigation.

LEGEND

③ Composite Sample Locations



J.W. GARRISON NO. 7 - Soil Sample Locations
(G) Sec. 22 - T29N - R11W, San Juan Co., NM

BLAGG ENGINEERING, INC.

DATE: 8/2004

FIGURE 1

BY: JCB

P.O. BOX 87, BLOOMFIELD, NM
PHONE: (505)632-1199

12640

san juan reproduction 578-129

7/29/04

J.W. GARRISON #7 : NMOCD P&A (A)

TPH BTEX DRCRA - CHLORIDE CAT/ANION

P&A MARKER : 2400 FEL x 2310 F L

Sec 22-T 29N-R11W

0715 Meet @ Site w/ D. Faust

Outline Sample Plan

- (1) Composite @ wellhead
- (2) Composite Away from wellhead
- (3) Composite @ Low Points towards Hwy 64

(1) 0735 4-Point @ 4' from Marker @ 0"-6" BGS

(2) 0745 4-Point @ 15' from Marker @ 0"-6" BGS

(3) 0759 4-Point @ Low Points @ 0"-6" BGS

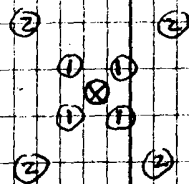
3A → 105' S 11 E

3B → 129' S 13 E

3C → 144' S 11 E

3D → 159' S 8 1/2 E

Hwy 64



3A

3B

3C

3D

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

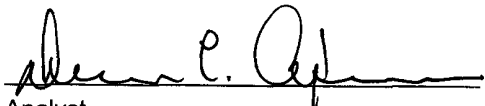
Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #1	Date Reported:	08-02-04
Laboratory Number:	29750	Date Sampled:	07-29-04
Chain of Custody No:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Extracted:	07-30-04
Preservative:	Cool	Date Analyzed:	08-02-04
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

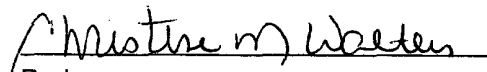
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	3.3	0.1
Total Petroleum Hydrocarbons	3.3	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: J. W. Garrison #7 4-Point Composite.


Analyst


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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

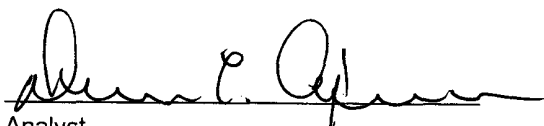
Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #2	Date Reported:	08-02-04
Laboratory Number:	29751	Date Sampled:	07-29-04
Chain of Custody No:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Extracted:	07-30-04
Preservative:	Cool	Date Analyzed:	08-02-04
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

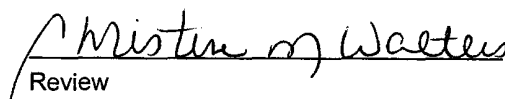
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **J. W. Garrison #7 4-Point Composite.**


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Review

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

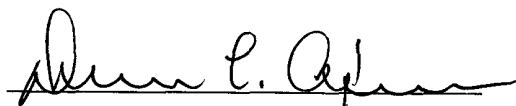
Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #3	Date Reported:	08-02-04
Laboratory Number:	29752	Date Sampled:	07-29-04
Chain of Custody No:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Extracted:	07-30-04
Preservative:	Cool	Date Analyzed:	08-02-04
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

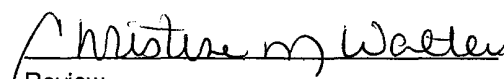
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: J. W. Garrison #7 4-Point Composite.


Analyst


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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	08-02-TPH QA/QC	Date Reported:	08-02-04
Laboratory Number:	29747	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-02-04
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept. Range
Gasoline Range C5 - C10	02-19-04	1.8591E-002	1.8572E-002	0.10%	0 - 15%
Diesel Range C10 - C28	02-19-04	1.5507E-002	1.5492E-002	0.10%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

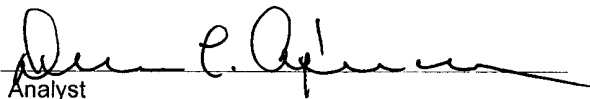
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	0.5	0.5	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

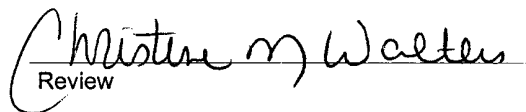
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	0.5	250	250	99.8%	75 - 125%
Diesel Range C10 - C28	ND	250	250	100.0%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for samples 29747 - 29752.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #1	Date Reported:	08-02-04
Laboratory Number:	29750	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Analyzed:	08-02-04
Preservative:	Cool	Date Extracted:	07-30-04
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	1.8
Toluene	7.3	1.7
Ethylbenzene	ND	1.5
p,m-Xylene	11.4	2.2
o-Xylene	13.3	1.0
Total BTEX	32.0	

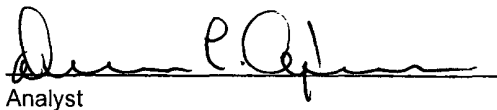
ND - Parameter not detected at the stated detection limit.

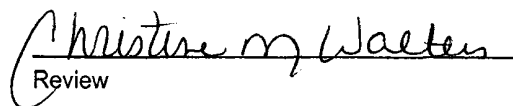
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99 %
	1,4-difluorobenzene	99 %
	Bromochlorobenzene	99 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: J. W. Garrison #7 4-Point Composite.


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Review

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #2	Date Reported:	08-02-04
Laboratory Number:	29751	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Analyzed:	08-02-04
Preservative:	Cool	Date Extracted:	07-30-04
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	1.8
Toluene	4.1	1.7
Ethylbenzene	4.2	1.5
p,m-Xylene	ND	2.2
o-Xylene	1.8	1.0
Total BTEX	10.1	

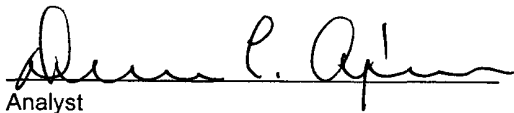
ND - Parameter not detected at the stated detection limit.

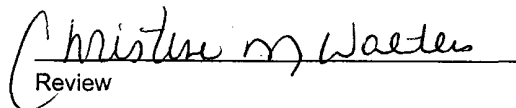
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99 %
	1,4-difluorobenzene	99 %
	Bromochlorobenzene	99 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: J. W. Garrison #7 4-Point Composite.


Analyst


Review

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #3	Date Reported:	08-02-04
Laboratory Number:	29752	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Analyzed:	08-02-04
Preservative:	Cool	Date Extracted:	07-30-04
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	6.1	1.8
Toluene	13.3	1.7
Ethylbenzene	8.3	1.5
p,m-Xylene	ND	2.2
o-Xylene	ND	1.0
Total BTEX	27.7	

ND - Parameter not detected at the stated detection limit.

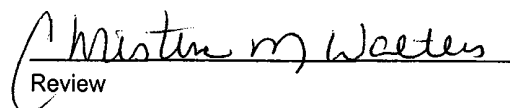
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99 %
	1,4-difluorobenzene	99 %
	Bromochlorobenzene	99 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: J. W. Garrison #7 4-Point Composite.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	08-02-TPH QA/QC	Date Reported:	08-02-04
Laboratory Number:	29747	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-02-04
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept. Range
Gasoline Range C5 - C10	02-19-04	1.8591E-002	1.8572E-002	0.10%	0 - 15%
Diesel Range C10 - C28	02-19-04	1.5507E-002	1.5492E-002	0.10%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

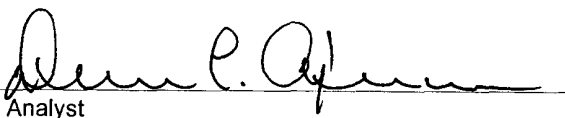
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	0.5	0.5	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

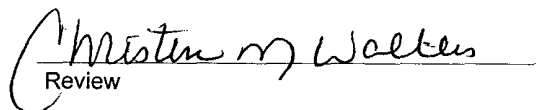
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	0.5	250	250	99.8%	75 - 125%
Diesel Range C10 - C28	ND	250	250	99.8%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for samples 29747 - 29752.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

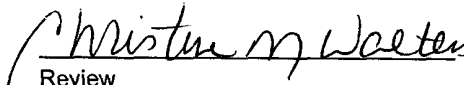
Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #1	Date Reported:	08-02-04
Laboratory Number:	29750	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Extracted:	07-31-04
Preservative:	Cool	Date Analyzed:	08-02-04
Condition:	Cool & Intact		

Parameter	Analytical Result	Units	Units
pH	11.16	s.u.	
Conductivity @ 25° C	913	umhos/cm	
Total Dissolved Solids @ 180C	568	mg/L	
Total Dissolved Solids (Calc)	575	mg/L	
SAR	5.5	ratio	
Total Alkalinity as CaCO3	89.6	mg/L	
Total Hardness as CaCO3	132	mg/L	
Bicarbonate as HCO3	89.6	mg/L	1.47 meq/L
Carbonate as CO3	<0.1	mg/L	0.00 meq/L
Hydroxide as OH	<0.1	mg/L	0.00 meq/L
Nitrate Nitrogen	0.2	mg/L	0.00 meq/L
Nitrite Nitrogen	0.026	mg/L	0.00 meq/L
Chloride	260	mg/L	7.33 meq/L
Fluoride	0.81	mg/L	0.04 meq/L
Phosphate	0.5	mg/L	0.02 meq/L
Sulfate	35.0	mg/L	0.73 meq/L
Iron	0.004	mg/L	0.00 meq/L
Calcium	52.8	mg/L	2.63 meq/L
Magnesium	<0.01	mg/L	0.00 meq/L
Potassium	27.6	mg/L	0.71 meq/L
Sodium	144	mg/L	6.26 meq/L
Cations			9.60 meq/L
Anions			9.59 meq/L
Cation/Anion Difference			0.11%

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Water And Waste Water", 18th ed., 1992.

Comments: J. W. Garrison 4-Point Composite.


Analyst

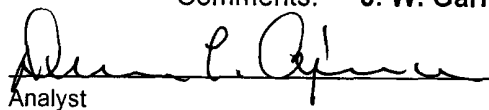

Review

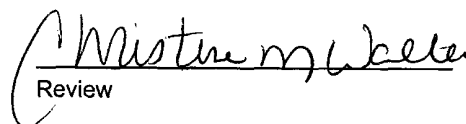
Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #2	Date Reported:	08-02-04
Laboratory Number:	29751	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Extracted:	07-31-04
Preservative:	Cool	Date Analyzed:	08-02-04
Condition:	Cool & Intact		

Parameter	Analytical Result	Units	Units
pH	6.24	s.u.	
Conductivity @ 25° C	1,040	umhos/cm	
Total Dissolved Solids @ 180C	540	mg/L	
Total Dissolved Solids (Calc)	455	mg/L	
SAR	1.9	ratio	
Total Alkalinity as CaCO3	45.3	mg/L	
Total Hardness as CaCO3	232	mg/L	
Bicarbonate as HCO3	45.3	mg/L	0.74 meq/L
Carbonate as CO3	<0.1	mg/L	0.00 meq/L
Hydroxide as OH	<0.1	mg/L	0.00 meq/L
Nitrate Nitrogen	1.8	mg/L	0.03 meq/L
Nitrite Nitrogen	0.082	mg/L	0.00 meq/L
Chloride	216	mg/L	6.09 meq/L
Fluoride	0.81	mg/L	0.04 meq/L
Phosphate	3.3	mg/L	0.10 meq/L
Sulfate	39.2	mg/L	0.82 meq/L
Iron	0.027	mg/L	0.00 meq/L
Calcium	80.0	mg/L	3.99 meq/L
Magnesium	7.81	mg/L	0.64 meq/L
Potassium	12.2	mg/L	0.31 meq/L
Sodium	66.3	mg/L	2.88 meq/L
Cations			7.83 meq/L
Anions			7.83 meq/L
Cation/Anion Difference			0.01%

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Water And Waste Water", 18th ed., 1992.

Comments: J. W. Garrison 4-Point Composite.


Analyst

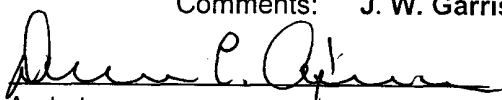

Review

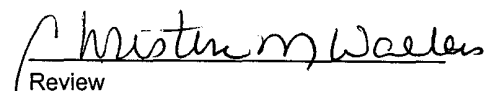
Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #3	Date Reported:	08-02-04
Laboratory Number:	29752	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Extracted:	07-31-04
Preservative:	Cool	Date Analyzed:	08-02-04
Condition:	Cool & Intact		

Parameter	Analytical Result	Units	Units
pH	6.37	s.u.	
Conductivity @ 25° C	650	umhos/cm	
Total Dissolved Solids @ 180C	492	mg/L	
Total Dissolved Solids (Calc)	457	mg/L	
SAR	2.2	ratio	
Total Alkalinity as CaCO3	82.9	mg/L	
Total Hardness as CaCO3	192	mg/L	
Bicarbonate as HCO3	82.9	mg/L	1.36 meq/L
Carbonate as CO3	<0.1	mg/L	0.00 meq/L
Hydroxide as OH	<0.1	mg/L	0.00 meq/L
Nitrate Nitrogen	0.3	mg/L	0.00 meq/L
Nitrite Nitrogen	0.017	mg/L	0.00 meq/L
Chloride	180	mg/L	5.08 meq/L
Fluoride	1.09	mg/L	0.06 meq/L
Phosphate	4.6	mg/L	0.15 meq/L
Sulfate	48.7	mg/L	1.01 meq/L
Iron	0.125	mg/L	0.00 meq/L
Calcium	65.6	mg/L	3.27 meq/L
Magnesium	6.84	mg/L	0.56 meq/L
Potassium	29.2	mg/L	0.75 meq/L
Sodium	70.6	mg/L	3.07 meq/L
Cations			7.66 meq/L
Anions			7.66 meq/L
Cation/Anion Difference			0.01%

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Water And Waste Water", 18th ed., 1992.

Comments: J. W. Garrison 4-Point Composite.


Analyst


Review

Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #1	Date Reported:	08-02-04
Laboratory Number:	29750	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Analyzed:	08-02-04
Preservative:	Cool	Date Digested:	07-31-04
Condition:	Cool & Intact	Analysis Needed:	RCRA Metals

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)	TCLP Regulatory Level (mg/Kg)
Arsenic	0.003	0.001	5.0
Barium	0.164	0.001	100
Cadmium	ND	0.001	1.0
Chromium	ND	0.001	5.0
Lead	ND	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	0.001	0.001	1.0
Silver	ND	0.001	5.0

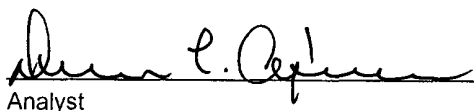
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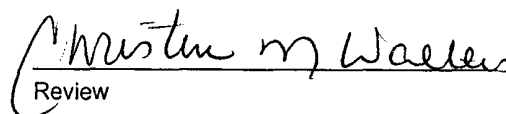
References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, August 24, 1998.

Comments: **J. W. Garrison #7 4 - Point Composite.**


Analyst


Review

Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #2	Date Reported:	08-02-04
Laboratory Number:	29751	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Analyzed:	08-02-04
Preservative:	Cool	Date Digested:	07-31-04
Condition:	Cool & Intact	Analysis Needed:	RCRA Metals

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)	TCLP Regulatory Level (mg/Kg)
Arsenic	0.002	0.001	5.0
Barium	0.122	0.001	100
Cadmium	ND	0.001	1.0
Chromium	ND	0.001	5.0
Lead	ND	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	ND	0.001	1.0
Silver	ND	0.001	5.0

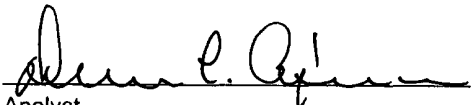
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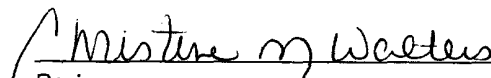
References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, August 24, 1998.

Comments: **J. W. Garrison #7 4 - Point Composite.**


Analyst


Review

Client:	Blagg / A Plus	Project #:	94034-010
Sample ID:	Sample #3	Date Reported:	08-02-04
Laboratory Number:	29752	Date Sampled:	07-29-04
Chain of Custody:	12640	Date Received:	07-29-04
Sample Matrix:	Soil	Date Analyzed:	08-02-04
Preservative:	Cool	Date Digested:	07-31-04
Condition:	Cool & Intact	Analysis Needed:	RCRA Metals

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)	TCLP Regulatory Level (mg/Kg)
Arsenic	0.003	0.001	5.0
Barium	0.135	0.001	100
Cadmium	ND	0.001	1.0
Chromium	ND	0.001	5.0
Lead	ND	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	0.001	0.001	1.0
Silver	ND	0.001	5.0

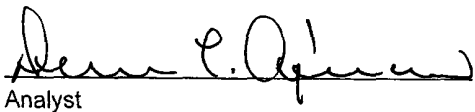
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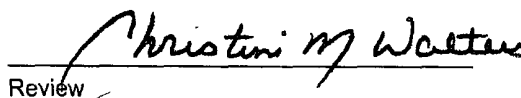
References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, August 24, 1998.

Comments: J. W. Garrison #7 4 - Point Composite.


Analyst


Review

TRACE METAL ANALYSIS
Quality Control /
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	08-02-04 QA/AC	Date Reported:	08-02-04
Laboratory Number:	29747	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Analysis Requested:	Total RCRA Metals	Date Analyzed:	08-02-04
Condition:	N/A	Date Digested:	07-31-04

Blank & Duplicate Conc. (mg/Kg)	Instrument Blank (mg/L)	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.006	0.006	0.0%	0% - 30%
Barium	ND	ND	0.001	0.246	0.248	0.8%	0% - 30%
Cadmium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Chromium	ND	ND	0.001	0.001	0.001	0.0%	0% - 30%
Lead	ND	ND	0.001	0.001	0.001	0.0%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	0.002	0.002	0.0%	0% - 30%
Silver	ND	ND	0.001	ND	ND	0.0%	0% - 30%

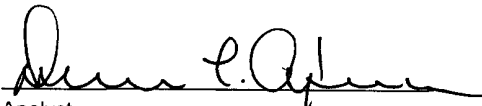
Spike Conc. (mg/Kg)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	0.006	0.505	99.8%	80% - 120%
Barium	0.500	0.246	0.745	99.9%	80% - 120%
Cadmium	0.500	ND	0.500	100.0%	80% - 120%
Chromium	0.500	0.001	0.501	100.0%	80% - 120%
Lead	0.500	0.001	0.500	99.8%	80% - 120%
Mercury	0.050	ND	0.050	100.0%	80% - 120%
Selenium	0.500	0.002	0.501	99.8%	80% - 120%
Silver	0.500	ND	0.500	100.0%	80% - 120%

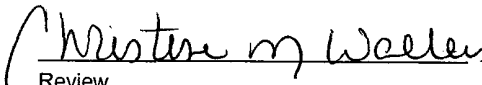
ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission
Spectroscopy, SW-846, USEPA, December 1996.

Comments: QA/QC for samples 29747 - 29752.


Analyst

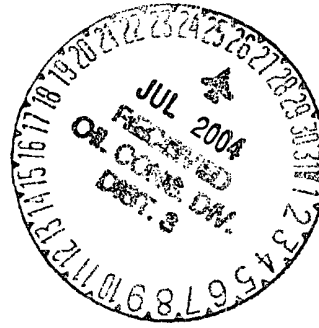

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

July 23, 2004

Mr. Denny Foust
State of New Mexico Oil Conservation Division
1000 Rio Brazos Rd
Aztec, New Mexico 87410



Project No.: 99042-004

Dear Mr. Foust,

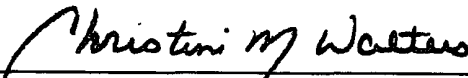
Enclosed are the analytical results for the sample collected from the location designated as "Garrison #7". One water sample was collected by O.C.D. designated personnel on 07/21/01, and delivered to the Envirotech laboratory on 07/21/01 for Cation/Anion, BTEX and RCRA Metals analysis.

The sample was documented on Envirotech Chain of Custody No. 12603 and assigned Laboratory No. 29623 (30-045-32453) for tracking purposes.

The sample was analyzed on 07/22/04 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.


Christine M. Walters
Lab Coordinator / Environmental Scientist

enclosure

CMW/cmw

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

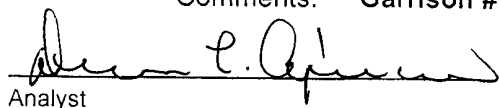
Client: A Plus Well Service / OCD
Sample ID: 30-045-32453
Laboratory Number: 29623
Chain of Custody: 12603
Sample Matrix: Water
Preservative: Cool
Condition: Cool & Intact

Project #: 99042-004
Date Reported: 07-22-04
Date Sampled: 07-21-04
Date Received: 07-21-04
Date Extracted: N/A
Date Analyzed: 07-21-04

Parameter	Analytical Result	Units	Units
pH	7.14	s.u.	
Conductivity @ 25° C	370	umhos/cm	
Total Dissolved Solids @ 180C	225	mg/L	
Total Dissolved Solids (Calc)	197	mg/L	
SAR	0.6	ratio	
Total Alkalinity as CaCO3	96.0	mg/L	
Total Hardness as CaCO3	128	mg/L	
Bicarbonate as HCO3	96.0	mg/L	1.57 meq/L
Carbonate as CO3	<0.1	mg/L	0.00 meq/L
Hydroxide as OH	<0.1	mg/L	0.00 meq/L
Nitrate Nitrogen	0.4	mg/L	0.01 meq/L
Nitrite Nitrogen	<0.001	mg/L	0.00 meq/L
Chloride	48.0	mg/L	1.35 meq/L
Fluoride	1.48	mg/L	0.08 meq/L
Phosphate	2.1	mg/L	0.07 meq/L
Sulfate	14.8	mg/L	0.31 meq/L
Iron	1.15	mg/L	0.04 meq/L
Calcium	51.6	mg/L	2.57 meq/L
Magnesium	<0.01	mg/L	0.00 meq/L
Potassium	5.69	mg/L	0.15 meq/L
Sodium	14.4	mg/L	0.63 meq/L
Cations			3.39 meq/L
Anions			3.39 meq/L
Cation/Anion Difference			0.04%

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Water And Waste Water", 18th ed., 1992.

Comments: Garrison #7.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	A Plus Well Service / OCD	Project #:	99042-004
Sample ID:	30-045-32453	Date Reported:	07-22-04
Chain of Custody:	12603	Date Sampled:	07-21-04
Laboratory Number:	29623	Date Received:	07-21-04
Sample Matrix:	Water	Date Analyzed:	07-22-04
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	10.0	1	0.2
Toluene	6.7	1	0.2
Ethylbenzene	0.3	1	0.2
p,m-Xylene	6.0	1	0.2
o-Xylene	0.9	1	0.1
Total BTEX	23.9		



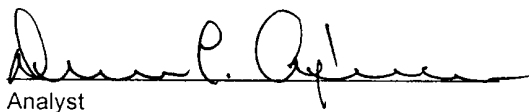
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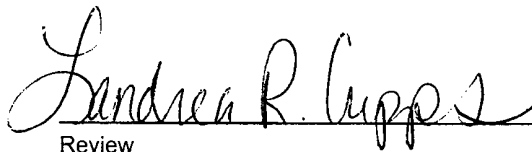
Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	95 %
	1,4-difluorobenzene	95 %
	4-bromochlorobenzene	95 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: Garrison #7.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	07-22-BTEX QA/QC	Date Reported:	07-22-04
Laboratory Number:	29623	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-22-04
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF: Accept. Range 0 - 15%	%Diff.	Blank Conc	Detect. Limit
Benzene	4.2776E-002	4.2862E-002	0.20%	ND	0.2
Toluene	4.8966E-002	4.8975E-002	0.02%	ND	0.2
Ethylbenzene	7.4036E-002	7.4185E-002	0.20%	ND	0.2
p,m-Xylene	6.8275E-002	6.8288E-002	0.02%	ND	0.2
o-Xylene	5.5866E-002	5.6034E-002	0.30%	ND	0.1

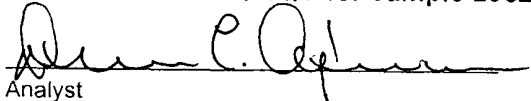
Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept Limit
Benzene	10.0	9.8	2.0%	0 - 30%
Toluene	6.7	6.6	0.0%	0 - 30%
Ethylbenzene	0.3	0.3	0.0%	0 - 30%
p,m-Xylene	6.0	5.9	1.7%	0 - 30%
o-Xylene	0.9	0.8	11.1%	0 - 30%

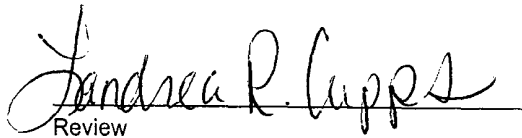
Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	10.0	50.0	59.9	99.8%	39 - 150
Toluene	6.7	50.0	56.6	99.8%	46 - 148
Ethylbenzene	0.3	50.0	50.3	100.0%	32 - 160
p,m-Xylene	6.0	100	106	100.0%	46 - 148
o-Xylene	0.9	50.0	50.9	100.0%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for sample 29623.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS

Client:	A Plus Well Service / OCD	Project #:	99042-004
Sample ID:	30-045-32453	Date Reported:	07-22-04
Laboratory Number:	29623	Date Sampled:	07-21-04
Chain of Custody:	12603	Date Received:	07-21-04
Sample Matrix:	Water	Date Analyzed:	07-22-04
Preservative:	Cool	Date Digested:	07-21-04
Condition:	Cool & Intact	Analysis Needed:	RCRA Metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	TCLP Regulatory Level (mg/L)
Arsenic	0.001	0.001	5.0
Barium	0.027	0.001	100
Cadmium	ND	0.001	1.0
Chromium	ND	0.001	5.0
Lead	ND	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	ND	0.001	1.0
Silver	ND	0.001	5.0

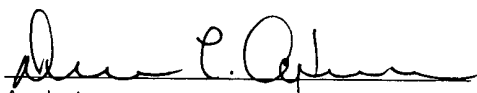
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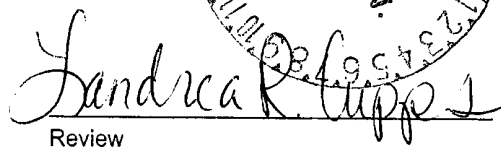
References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, August 24, 1998.

Comments: Garrison #7.


Analyst



Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS Quality Control / Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	07-22-TM QA/QC	Date Reported:	07-22-04
Laboratory Number:	29623	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	Total RCRA Metals	Date Analyzed:	07-22-04
Condition:	N/A	Date Digested:	07-21-04

Blank & Duplicate Conc. (mg/L)	Instrument Blank (mg/L)	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.001	0.001	0.0%	0% - 30%
Barium	ND	ND	0.001	0.027	0.027	0.0%	0% - 30%
Cadmium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Chromium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Lead	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Silver	ND	ND	0.001	ND	ND	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	0.001	0.500	99.8%	80% - 120%
Barium	0.500	0.027	0.526	99.8%	80% - 120%
Cadmium	0.500	ND	0.500	100.0%	80% - 120%
Chromium	0.500	ND	0.500	100.0%	80% - 120%
Lead	0.500	ND	0.499	99.8%	80% - 120%
Mercury	0.050	ND	0.050	100.0%	80% - 120%
Selenium	0.500	ND	0.499	99.8%	80% - 120%
Silver	0.500	ND	0.500	100.0%	80% - 120%

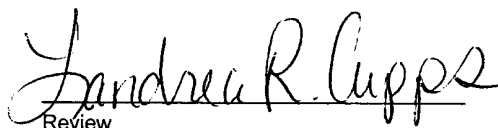
ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission
Spectroscopy, SW-846, USEPA, December 1996.

Comments: QA/QC for sample 29623.


Analyst


Review

12603

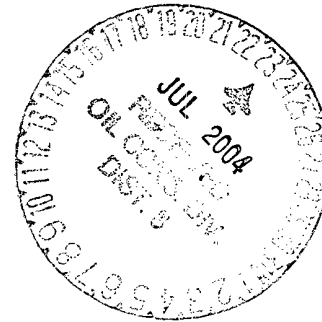
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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

July 20, 2004

Mr. Bill Clark
A-Plus Well Services, Inc.
P.O. Box 1979
Farmington, New Mexico 87499



Client No.: 99042-004
Job No.: 904204

Dear Mr. Clark,

Enclosed are the analytical results for the sample collected from the location designated as "30-045-32-453". Two water samples were collected by A-Plus Well Service designated personnel on 07/15/04 and 07/17/04, and delivered to the Envirotech laboratory on 07/15/04 and 07/17/04 for Cation/Anion, BTEX, TDS and 8 RCRA Metals analysis.

The samples were documented on Envirotech Chain of Custody No. 12588 and 12596 and assigned Laboratory No. 29561 (Water Flow) and Laboratory No. 29568 (1) for tracking purposes.

The samples were analyzed on 07/16/04 and 17/19/04 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

A handwritten signature in cursive script that reads 'Christine M. Walters'.

Christine M. Walters
Lab Coordinator / Environmental Scientist

enclosure

CMW/cmw

C:/files/labreportsAPlus/.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS

Client: A Plus Well Service Project #: 99042-004
Sample ID: Water Flow Date Reported: 07-19-04
Laboratory Number: 29561 Date Sampled: 07-15-04
Chain of Custody: 12588 Date Received: 07-15-04
Sample Matrix: Water Date Analyzed: 07-19-04
Preservative: Cool Date Digested: 07-16-04
Condition: Cool & Intact Analysis Needed: RCRA Metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	TCLP Regulatory Level (mg/L)
Arsenic	0.002	0.001	5.0
Barium	0.059	0.001	100
Cadmium	ND	0.001	1.0
Chromium	ND	0.001	5.0
Lead	ND	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	ND	0.001	1.0
Silver	ND	0.001	5.0

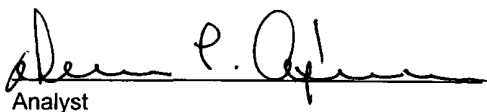
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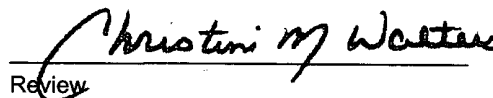
References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission
Spectroscopy, SW-846, USEPA, December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, August 24, 1998.

Comments: 30-045-32453.


Analyst


Review

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS Quality Control / Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	07-19-TM QA/QC	Date Reported:	07-19-04
Laboratory Number:	29561	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	Total RCRA Metals	Date Analyzed:	07-19-04
Condition:	N/A	Date Digested:	07-16-04

Blank & Duplicate Conc. (mg/L)	Instrument Blank (mg/L)	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.002	0.002	0.0%	0% - 30%
Barium	ND	ND	0.001	0.059	0.058	1.7%	0% - 30%
Cadmium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Chromium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Lead	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Silver	ND	ND	0.001	ND	ND	0.0%	0% - 30%

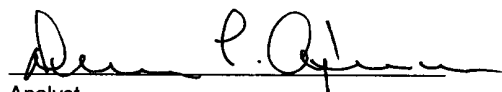
Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	0.002	0.501	99.8%	80% - 120%
Barium	0.500	0.059	0.558	99.8%	80% - 120%
Cadmium	0.500	ND	0.500	100.0%	80% - 120%
Chromium	0.500	ND	0.500	100.0%	80% - 120%
Lead	0.500	ND	0.499	99.8%	80% - 120%
Mercury	0.050	ND	0.050	100.0%	80% - 120%
Selenium	0.500	ND	0.499	99.8%	80% - 120%
Silver	0.500	ND	0.500	100.0%	80% - 120%

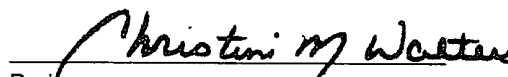
ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission
Spectroscopy, SW-846, USEPA, December 1996.

Comments: QA/QC for sample 29561.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	A Plus Well Service	Project #:	99042-004
Sample ID:	Water Flow	Date Reported:	07-19-04
Chain of Custody:	12588	Date Sampled:	07-15-04
Laboratory Number:	29561	Date Received:	07-15-04
Sample Matrix:	Water	Date Analyzed:	07-19-04
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	25.2	1	0.2
Toluene	12.0	1	0.2
Ethylbenzene	43.5	1	0.2
p,m-Xylene	151	1	0.2
o-Xylene	75.9	1	0.1
Total BTEX	308		



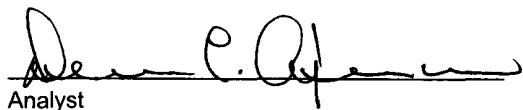
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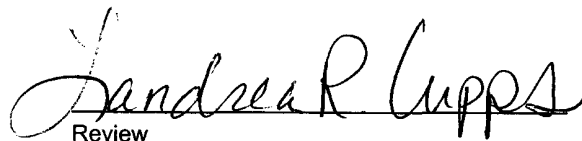
Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	96 %
	1,4-difluorobenzene	96 %
	4-bromochlorobenzene	96 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: 30-045-32453.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	07-19-BTEX QA/QC	Date Reported:	07-19-04
Laboratory Number:	29561	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-19-04
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff:	Blank Conc	Detect. Limit
		Accept: Range 0 - 15%			
Benzene	4.2776E-002	4.2862E-002	0.20%	ND	0.2
Toluene	4.8966E-002	4.8975E-002	0.02%	ND	0.2
Ethylbenzene	7.4036E-002	7.4185E-002	0.20%	ND	0.2
p,m-Xylene	6.8275E-002	6.8288E-002	0.02%	ND	0.2
o-Xylene	5.5866E-002	5.6034E-002	0.30%	ND	0.1

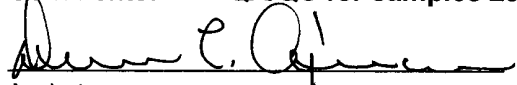
Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept Limit
Benzene	25.2	25.0	0.8%	0 - 30%
Toluene	12.0	12.0	0.0%	0 - 30%
Ethylbenzene	43.5	43.0	1.1%	0 - 30%
p,m-Xylene	151	149	1.6%	0 - 30%
o-Xylene	75.9	73.5	3.2%	0 - 30%

Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	25.2	50.0	74.7	99.3%	39 - 150
Toluene	12.0	50.0	62.0	100.0%	46 - 148
Ethylbenzene	43.5	50.0	93.2	99.7%	32 - 160
p,m-Xylene	151	100	248	98.9%	46 - 148
o-Xylene	75.9	50.0	125	99.6%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for samples 29561, 29568.


Analyst


Review

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	A Plus Well Service	Project #:	99042-004
Sample ID:	Water Flow	Date Reported:	07-16-04
Laboratory Number:	29561	Date Sampled:	07-15-04
Chain of Custody:	12588	Date Received:	07-15-04
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	07-15-04
Condition:	Cool & Intact		

Parameter	Analytical Result	Units	Units
pH	11.97	s.u.	
Conductivity @ 25° C	5,380	umhos/cm	
Total Dissolved Solids @ 180C	4,230	mg/L	
Total Dissolved Solids (Calc)	4,490	mg/L	
SAR	35.2	ratio	
Total Alkalinity as CaCO3	480	mg/L	
Total Hardness as CaCO3	296	mg/L	
Bicarbonate as HCO3	296	mg/L	4.85 meq/L
Carbonate as CO3	184	mg/L	6.13 meq/L
Hydroxide as OH	<0.1	mg/L	0.00 meq/L
Nitrate Nitrogen	1.2	mg/L	0.02 meq/L
Nitrite Nitrogen	0.009	mg/L	0.00 meq/L
Chloride	180	mg/L	5.08 meq/L
Fluoride	1.47	mg/L	0.08 meq/L
Phosphate	0.7	mg/L	0.02 meq/L
Sulfate	2,460	mg/L	51.22 meq/L
Iron	0.001	mg/L	0.00 meq/L
Calcium	118	mg/L	5.89 meq/L
Magnesium	<0.1	mg/L	0.00 meq/L
Potassium	48.8	mg/L	1.25 meq/L
Sodium	1,390	mg/L	60.47 meq/L
Cations			67.60 meq/L
Anions			67.40 meq/L
Cation/Anion Difference			0.30%



Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Water And Waste Water", 18th ed., 1992.

Comments: 30-45-32453

Christine M. Walters
Analyst

John E. Quinn
Review

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Water Analysis

Client:	A Plus Well Service	Project #:	99042-004
Sample ID:	1	Date Reported:	07-19-04
Laboratory Number:	29568	Date Sampled:	07-17-04
Sample Matrix:	Water	Date Received:	07-17-04
Preservative:	Cool	Date Analyzed:	07-19-04
Condition:	Cool & Intact	Chain of Custody:	12596

Parameter	Analytical Result	Units
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Total Dissolved Solids @ 180C

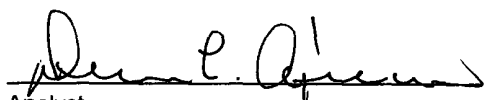
3,500

mg/L



Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Bloomfield, NM 30-045-32-453.**


Analyst


Review

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	A Plus Well Service	Project #:	99042-004
Sample ID:	1	Date Reported:	07-19-04
Chain of Custody:	12596	Date Sampled:	07-17-04
Laboratory Number:	29568	Date Received:	07-17-04
Sample Matrix:	Water	Date Analyzed:	07-19-04
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	1.3	1	0.2
Toluene	0.5	1	0.2
Ethylbenzene	1.2	1	0.2
p,m-Xylene	7.6	1	0.2
o-Xylene	1.9	1	0.1
Total BTEX	12.5		



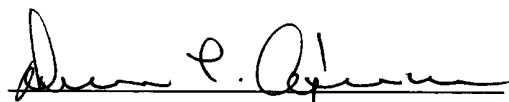
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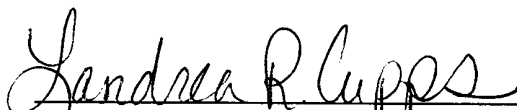
Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	96 %
	1,4-difluorobenzene	96 %
	4-bromochlorobenzene	96 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: Bloomfield, NM 30-045-32-453.


Analyst


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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	07-19-BTEX QA/QC	Date Reported:	07-19-04
Laboratory Number:	29561	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-19-04
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff	Blank Conc	Detect Limit
		Accept. Range 0 - 15%			
Benzene	4.2776E-002	4.2862E-002	0.20%	ND	0.2
Toluene	4.8966E-002	4.8975E-002	0.02%	ND	0.2
Ethylbenzene	7.4036E-002	7.4185E-002	0.20%	ND	0.2
p,m-Xylene	6.8275E-002	6.8288E-002	0.02%	ND	0.2
o-Xylene	5.5866E-002	5.6034E-002	0.30%	ND	0.1

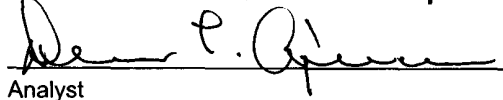
Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff	Accept Limit
Benzene	25.2	25.0	0.8%	0 - 30%
Toluene	12.0	12.0	0.0%	0 - 30%
Ethylbenzene	43.5	43.0	1.1%	0 - 30%
p,m-Xylene	151	149	1.6%	0 - 30%
o-Xylene	75.9	73.5	3.2%	0 - 30%

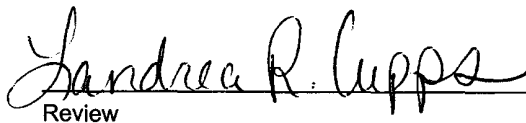
Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	25.2	50.0	74.7	99.3%	39 - 150
Toluene	12.0	50.0	62.0	100.0%	46 - 148
Ethylbenzene	43.5	50.0	93.2	99.7%	32 - 160
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o-Xylene	75.9	50.0	125	99.6%	46 - 148

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References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for samples 29561, 29568.


Analyst


Review

12596

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