Metals

Case Narrative

NMED Hazardous Waste Bureau

KAFB – BFF 1Q12

Work Order Number: 1202035

1. This report consists of 4 water samples for total recoverable or dissolved metals.

2. The samples were received cool and intact by ALS on 2/3/2012.

3. The samples for dissolved metals had been filtered prior to receipt. All samples had a pH less than 2 upon receipt.

4. The samples were prepared and analyzed based on SW-846, 3rd Edition Procedures.

   For analysis by Trace ICP, the samples were digested following method 3005A and SOP 806 Rev. 15

   For analysis by Cold Vapor AA (CVAA), the samples were digested following method 7470A and SOP 812 Rev. 15.

5. Analysis by Trace ICP followed method 6010B and SOP 834 Rev. 8.

   Analysis by CVAA followed method 7470A and SOP 812 Rev. 15.

6. All standards and solutions are NIST traceable and were used within their recommended shelf life.

7. The samples were prepared and analyzed within the established hold times.

All in house quality control procedures were followed, as described below.

8. General quality control procedures.

   - A preparation (method) blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.

- The preparation (method) blank associated with each digestion batch was below the practical quantitation limit for the requested analytes.
- All laboratory control sample criteria were met.
- All initial and continuing calibration blanks were below the practical quantitation limit for the requested analytes.
- All initial and continuing calibration verifications were within the acceptance criteria for the requested analytes.
- The interference check samples and high standard readbacks associated with Method 6010B were within acceptance criteria.

9. Matrix specific quality control procedures.

   Sample 1202035-20 was designated as the quality control sample the Trace-ICP analysis. Per method requirements, matrix QC was performed for the mercury analysis. Since a sample from this order number was not the selected quality control (QC) sample, matrix specific QC results are not included in this report.

   Similarity of matrix and therefore relevance of the QC results should not be automatically inferred for any sample other than the native sample selected for QC.

   A matrix spike and matrix spike duplicate were digested and analyzed with the Trace-ICP batch. All acceptance criteria for accuracy were met.

   A sample duplicate and matrix spike duplicate were digested and analyzed with the Trace-ICP batch. All acceptance criteria for precision were met.

   A serial dilution was analyzed with the Trace-ICP batch. All acceptance criteria were met.

10. Sample dilutions were not required for the requested analyses.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Mike Lundgren — 2-22-12
Inorganics Primary Data Reviewer — Date

Inorganics Final Data Reviewer — 02-22-12
Date

Inorganic Data Reporting Qualifiers

The following qualifiers are used by the laboratory when reporting results of inorganic analyses.

- Result qualifier -- A “B” is entered if the reported value was obtained from a reading that was less than the Practical Quantitation Limit but greater than or equal to the Method Detection Limit (MDL). If the analyte was analyzed for but not detected a “U” is entered. For samples, negative values are reported as non-detects (“U” flagged). For blanks, if the absolute value of the negative value is above the MDL and below the practical quantitation limit, then the result is “B” flagged.

- QC qualifier -- Specified entries and their meanings are as follows:

  E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

  M - Duplicate injection precision was not met.

  N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

  Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

  * - Duplicate analysis (relative percent difference) not within control limits.

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1202035
Client Name: NMED Hazardous Waste Bureau
Client Project Name: KAFB - BFF 1Q12
Client Project Number:
Client PO Number: 20-667-00-16004

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
106042-A	1202035-1		WATER	02-Feb-12	14:49
106042-B	1202035-2		WATER	02-Feb-12	14:51
106042-C	1202035-3		WATER	02-Feb-12	14:53
106042-D	1202035-4		WATER	02-Feb-12	14:55
106042-E	1202035-5		WATER	02-Feb-12	14:57
106042-F	1202035-6		WATER	02-Feb-12	14:59
106042-G	1202035-7		WATER	02-Feb-12	15:00
106042-H	1202035-8		WATER	02-Feb-12	15:01
106042-I	1202035-9		WATER	02-Feb-12	15:02
106042-J	1202035-10		WATER	02-Feb-12	15:04
106043-A	1202035-11		WATER	02-Feb-12	12:06
106043-B	1202035-12		WATER	02-Feb-12	12:08
106043-C	1202035-13		WATER	02-Feb-12	12:16
106043-D	1202035-14		WATER	02-Feb-12	12:22
106043-E	1202035-15		WATER	02-Feb-12	12:26
106043-F	1202035-16		WATER	02-Feb-12	12:28
106043-G	1202035-17		WATER	02-Feb-12	12:32
106043-H	1202035-18		WATER	02-Feb-12	12:34
106043-I	1202035-19		WATER	02-Feb-12	12:35
106043-J	1202035-20		WATER	02-Feb-12	12:38

ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202r8

WORKORDER #	1202035
PAGE	1 of 1
DISPOSAL	By Lab or Return to Client

PROJECT NAME	KAFB BFF 1Q/12	SAMPLER	BLS
PROJECT No.		SITE ID	KAFB-106042
		EDD FORMAT	
		PURCHASE ORDER	
COMPANY NAME	NMED	BILL TO COMPANY	NMED / HWB
SEND REPORT TO	Brian Salem	INVOICE ATTN TO	Dave Cobrain
ADDRESS	5500 San Antonio NE	ADDRESS	2905 Rodeo Park Dr.
CITY / STATE / ZIP	ABQ, NM 87109	CITY / STATE / ZIP	Santa Fe, NM 87505
PHONE	505-222-9576	PHONE	505-476-6055
FAX		FAX	
E-MAIL		E-MAIL	

DATE: 2/2/12
TURNAROUND: Normal

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	VOC 8260	EDB 8011	GRO 8015	DRO 8015	PAH 8270 SIMM	Tot Met 6010 TAL	Anions, FIX 300.0	Nitrate + Nitrite 353.3	Sulfide 376.1	Dis. metal 6010 Fe, Mn Only
1	106042-A	W	2/2/12	14:49	3	HCl		X									
2	106042-B	W		14:51	3	HCl				X							
3	106042-C	W		14:53	3	HCl			X								
4	106042-D	W		14:55	1	—						X					
5	106042-E	W		14:57	1	H_2SO_4					X						
6	106042-F	W		14:59	1	—								X			
7	106042-G	W		15:00	1	H_2SO_4									X		
8	106042-H	W		15:01	1	Zn/OAc										X	
9	106042-I	W		15:02	1	HNO_3							X				
10	106042-J	W		15:04	1	HNO_3											X

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:

QC PACKAGE (check below)	
	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Brian Salem	Brian Salem	2-2-12	16:30
RECEIVED BY	Kandi Barrow	Kandi Barrow	2-3-12	1140
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202r8

WORKORDER #	1202035				
PAGE	1 of 1				
DISPOSAL	By Lab or Return to Client				

PROJECT NAME	KAFB BFF 10/12	SAMPLER	BLS	DATE	2/2/12
PROJECT No.		SITE ID	KAFB - 106043	TURNAROUND	Normal
		EDD FORMAT			
		PURCHASE ORDER			
COMPANY NAME	NMED	BILL TO COMPANY	NMED / HWB		
SEND REPORT TO	~~NMI~~ Brian Salem	INVOICE ATTN TO	Dave Cobrain		
ADDRESS	5500 San Antonio NE	ADDRESS	2905 Rodeo Park Dr.		
CITY / STATE / ZIP	ABQ, NM 87109	CITY / STATE / ZIP	Santa Fe, NM 87505		
PHONE	505-222-9576	PHONE	505-476-6055		
FAX		FAX			
E-MAIL		E-MAIL			

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	VOC 8260	EDB 8011	G-RO 8015	DRO 8015	PAH 8270 SIMM	Tot metal 6010 TAL	Anions A1K 310.1	NH3 Nitrate, Nitrite 350.3 3533	Sulfide 376.1	Diss. Metals 6010 Fe, Mn only
11	106043-A	W	2/2/12	12:06	3	HCl		X									
12	106043-B			12:08	3	HCl				X							
13	106043-C			12:16	3	HCl			X								
14	106043-D			12:22	1	—						X					
15	106043-E			12:26	1	H_2SO_4					X						
16	106043-F			12:28	1	—								X			
17	106043-G			12:32	1	H_2SO_4								X	X		
18	106043-H			12:34	1	Zn/OAc									X	X	
19	106043-I			12:35	1	HNO_3							X			X	
20	106043-J			12:38	1	HNO_3											X

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = Water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:

QC PACKAGE (check below)	
	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Brian Salem	Brian Salem	2/2/12	16:30
RECEIVED BY	Kandi Barraw	Kandi Barraw	2-3-12	1140
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

ALS Laboratory Group - Fort Collins

CONDITION OF SAMPLE UPON RECEIPT FORM

Client: NMED Workorder No: 1202035

Project Manager: LS Initials: KCB Date: 02-03-12

1. Does this project require any **special handling** in addition to standard Paragon procedures?			YES	(NO)
2. Are custody **seals** on **shipping containers** intact?	NONE		(YES)	NO
3. Are Custody seals on **sample containers** intact?		(NONE)	YES	NO
4. Is there a **COC (Chain-of-Custody) present** or other representative documents?			(YES)	NO
5. Are the **COC and bottle labels complete and legible**?			(YES)	NO
6. Is the **COC in agreement** with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)			(YES)	NO
7. Were **airbills / shipping documents** present and/or removable?	DROP OFF		(YES)	NO
8. Are all **aqueous samples requiring preservation preserved correctly? (excluding volatiles)**	N/A		(YES)	NO
9. Are all aqueous **non-preserved samples pH 4-9**?	N/A		(YES)	NO
10. Is there **sufficient sample** for the requested analyses?			(YES)	NO
11. Were all samples placed in the **proper containers** for the requested analyses?			(YES)	NO
12. Are all samples within **holding times** for the requested analyses?			(YES)	NO
13. Were all sample containers received **intact**? (not broken or leaking, etc.)			(YES)	NO
14. Are all samples requiring **no** headspace (**VOC, GRO, RSK/MEE, Rx CN/S, radon**) headspace free? **Size of bubble**: ____ < green pea ____ > green pea	N/A		(YES)	NO
15. Do perchlorate LCMS-MS samples **have** headspace? (at least 1/3 of container required)	(N/A)		YES	NO
16. Were samples checked for and free from the presence of **residual chlorine?** (Applicable when PM has indicated samples are from a chlorinated water source; note if field preservation with sodium thiosulfate was not observed.)	(N/A)		YES	NO
17. Were the samples **shipped on ice**?			(YES)	NO
18. Were cooler temperatures measured at 0.1-6.0°C? **IR gun used*: #2 (#4)**	RAD ONLY		(YES)	NO

Cooler #:	1	2						
Temperature (°C):	0.4	0.2						
No. of custody seals on cooler:	2	2						
DOT Survey/ Acceptance Information — External µR/hr reading:	15	14						
Background µR/hr reading:	13							

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? **YES / NO / NA** (If no, see Form 008.)

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

If applicable, was the client contacted? **YES / NO / NA** Contact: _____ Date/Time: _____

Project Manager Signature / Date: _____

*IR Gun #2: Oakton, SN 29922500201-0066 *IR Gun #4: Oakton, SN 2372220101-0002

Form 201r22.xls (6/1/09)

1202035

FedEx Express **NEW Package US Airbill**

FedEx Tracking Number 8768 4049 9101

0200 Form ID No.

FedEx Retrieval Copy

1 From

Date 2-2-12 Sender's FedEx Account Number

Sender's Name Brian Salem Phone 505 222-9576

Company NMED / HWB

Address 5500 San Antonio NE

Dept./Floor/Suite/Room

City Albuquerque State NM ZIP 87109

2 Your Internal Billing Reference

3 To

Recipient's Name Lance Steere Phone 970 490-1511

Company ALS Labs

Address 225 Commerce Dr.

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

01 ☐ HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

Address

Use this line for the HOLD location address or for continuation of your shipping address.

31 ☐ HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

City Ft. Collins State CO ZIP 80524-2762

8768 4049 9101

4 Express Package Service * To most locations.

NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs. For packages over 150 lbs., use the new FedEx Express Freight US Airbill.

Next Business Day

06 ☐ FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

01 ☒ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

05 ☐ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

49 ☐ NEW FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.

03 ☐ FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

20 ☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

06 ☐ FedEx Envelope* 02 ☐ FedEx Pak* 03 ☐ FedEx Box 04 ☐ FedEx Tube 01 ☒ Other

6 Special Handling and Delivery Signature Options

03 ☐ **SATURDAY DELIVERY**

☐ No Signature Required — Package may be left without obtaining a signature for delivery.

☐ Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.

34 ☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

One box must be checked.

☒ No

04 ☐ Yes — As per attached Shipper's Declaration.

☐ Yes — Shipper's Declaration not required.

06 ☐ Dry Ice — Dry ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

☐ Cargo Aircraft Only

7 Payment *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below.

Obtain recip. Acct. No. ☐

1 ☐ Sender Acct. No. in Section 1 will be billed. 2 ☒ Recipient 3 ☐ Third Party 4 ☐ Credit Card 5 ☐ Cash/Check

Total Packages 2 Total Weight ____ lbs. Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

612

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15.12

0.49

1202035

ORIGIN ID: ONMA (801) 266-7700
ALS LABORATORY GROUP GOV

960 LEVOY DR

SALT LAKE CITY, UT 841232502
UNITED STATES US

SHIP DATE: 02FEB12
ACTWGT: 49.0 LB
CAD: /POS1242
DIMS: 24x14x13 IN

BILL SENDER

TO LANCE STEERE
ALS LABS
225 COMMERCE DR

FT. COLLINS CO 80524
(970) 490-1511 REF:
INV:
PO: DEPT:

2-
$10.2

FedEx Express

2 of 2
MPS# 0681 7957 6154 7778
Mstr# 8768 4049 9101 0200

FRI - 03 FEB A2
PRIORITY OVERNIGHT

XH FTCA

80524
CO-US DEN

Total Recoverable ICP Metals

Method SW6010B

Sample Results

Lab Name: **ALS Environmental -- FC**
Work Order Number: 1202035
Client Name: NMED Hazardous Waste Bureau
ClientProject ID: KAFB - BFF 1Q12

Field ID: 106042-I
Lab ID: 1202035-9

Analysis ReqCode: **202**

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 02-Feb-12
Date Extracted: 06-Feb-12
Date Analyzed: 07-Feb-12
Prep Method: SW3005 Rev A

Prep Batch: IP120206-4
QCBatchID: IP120206-4-1
Run ID: IT120207-2A5
Cleanup: NONE
Basis: As Received
File Name: 120207A.

Sample Aliquot: 50 g
Final Volume: 50 g
Result Units: MG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	0.047	0.2	0.031	B	
7440-36-0	ANTIMONY	1	0.0036	0.02	0.0036	U	
7440-38-2	ARSENIC	1	0.0026	0.01	0.0026	U	
7440-39-3	BARIUM	1	0.19	0.1	0.0017		
7440-41-7	BERYLLIUM	1	0.00018	0.005	0.00018	U	
7440-43-9	CADMIUM	1	0.0008	0.005	0.0008	U	
7440-70-2	CALCIUM	1	55	1	0.13		
7440-47-3	CHROMIUM	1	0.0018	0.01	0.0018	U	
7440-48-4	COBALT	1	0.00088	0.01	0.00088	U	
7440-50-8	COPPER	1	0.0016	0.01	0.0016	U	
7439-89-6	IRON	1	0.037	0.1	0.037	U	
7439-92-1	LEAD	1	0.0021	0.003	0.0021	U	
7439-95-4	MAGNESIUM	1	7.4	1	0.12		
7439-96-5	MANGANESE	1	0.0014	0.01	0.0014	U	
7440-02-0	NICKEL	1	0.015	0.02	0.0015	B	
7440-09-7	POTASSIUM	1	2.8	1	0.36		
7782-49-2	SELENIUM	1	0.0022	0.005	0.0022	U	
7440-22-4	SILVER	1	0.0016	0.01	0.0016	U	
7440-23-5	SODIUM	1	23	1	0.39		
7440-28-0	THALLIUM	1	0.0037	0.01	0.0037	U	
7440-62-2	VANADIUM	1	0.0035	0.01	0.0016	B	
7440-66-6	ZINC	1	0.0021	0.02	0.0021	U	

Data Package ID: *IT1202035-1*

Dissolved ICP Metals

Method SW6010B

Sample Results

Lab Name: **ALS Environmental -- FC**
Work Order Number: 1202035
Client Name: NMED Hazardous Waste Bureau
ClientProject ID: KAFB - BFF 1Q12

Field ID: 106042-J
Lab ID: 1202035-10

Analysis ReqCode: **201**

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 02-Feb-12
Date Extracted: 06-Feb-12
Date Analyzed: 07-Feb-12
Prep Method: SW3005 Rev A

Prep Batch: IP120206-4
QCBatchID: IP120206-4-2
Run ID: IT120207-2A5
Cleanup: NONE
Basis: As Received
File Name: 120207A.

Sample Aliquot: 50 g
Final Volume: 50 g
Result Units: MG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier
7439-89-6	IRON	1	0.037	0.1	0.037	U	
7439-96-5	MANGANESE	1	0.0014	0.01	0.0014	U	

Data Package ID: *IT1202035-1*

Total Recoverable ICP Metals

Method SW6010B

Sample Results

Lab Name: **ALS Environmental -- FC**
Work Order Number: 1202035
Client Name: NMED Hazardous Waste Bureau
ClientProject ID: KAFB - BFF 1Q12

Field ID: 106043-I
Lab ID: 1202035-19

Analysis ReqCode: **202**

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 02-Feb-12
Date Extracted: 06-Feb-12
Date Analyzed: 07-Feb-12
Prep Method: SW3005 Rev A

Prep Batch: IP120206-4
QCBatchID: IP120206-4-1
Run ID: IT120207-2A5
Cleanup: NONE
Basis: As Received
File Name: 120207A.

Sample Aliquot: 50 g
Final Volume: 50 g
Result Units: MG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	0.052	0.2	0.031	B	
7440-36-0	ANTIMONY	1	0.0036	0.02	0.0036	U	
7440-38-2	ARSENIC	1	0.0026	0.01	0.0026	U	
7440-39-3	BARIUM	1	0.14	0.1	0.0017		
7440-41-7	BERYLLIUM	1	0.00018	0.005	0.00018	U	
7440-43-9	CADMIUM	1	0.0008	0.005	0.0008	U	
7440-70-2	CALCIUM	1	40	1	0.13		
7440-47-3	CHROMIUM	1	0.0018	0.01	0.0018	U	
7440-48-4	COBALT	1	0.00088	0.01	0.00088	U	
7440-50-8	COPPER	1	0.0016	0.01	0.0016	U	
7439-89-6	IRON	1	0.037	0.1	0.037	U	
7439-92-1	LEAD	1	0.0021	0.003	0.0021	U	
7439-95-4	MAGNESIUM	1	5.5	1	0.12		
7439-96-5	MANGANESE	1	0.0014	0.01	0.0014	U	
7440-02-0	NICKEL	1	0.0032	0.02	0.0015	B	
7440-09-7	POTASSIUM	1	2.2	1	0.36		
7782-49-2	SELENIUM	1	0.0022	0.005	0.0022	U	
7440-22-4	SILVER	1	0.0016	0.01	0.0016	U	
7440-23-5	SODIUM	1	19	1	0.39		
7440-28-0	THALLIUM	1	0.0037	0.01	0.0037	U	
7440-62-2	VANADIUM	1	0.003	0.01	0.0016	B	
7440-66-6	ZINC	1	0.02	0.02	0.0021	B	

Data Package ID: *IT1202035-1*

Dissolved ICP Metals

Method SW6010B

Sample Results

Lab Name: **ALS Environmental -- FC**
Work Order Number: 1202035
Client Name: NMED Hazardous Waste Bureau
ClientProject ID: KAFB - BFF 1Q12

Field ID: 106043-J
Lab ID: 1202035-20

Analysis ReqCode: **201**

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 02-Feb-12
Date Extracted: 06-Feb-12
Date Analyzed: 07-Feb-12
Prep Method: SW3005 Rev A

Prep Batch: IP120206-4
QCBatchID: IP120206-4-2
Run ID: IT120207-2A5
Cleanup: NONE
Basis: As Received
File Name: 120207A.

Sample Aliquot: 50 g
Final Volume: 50 g
Result Units: MG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier
7439-89-6	IRON	1	0.037	0.1	0.037	U	
7439-96-5	MANGANESE	1	0.0014	0.01	0.0014	B	

Data Package ID: *IT1202035-1*

Total MERCURY

Method SW7470A

Sample Results

Lab Name: **ALS Environmental -- FC**
Client Name: NMED Hazardous Waste Bureau
Client Project ID: KAFB - BFF 1Q12
Work Order Number: 1202035
Reporting Basis: As Received

Final Volume: 20 g
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	MDL	Flag	Sample Aliquot
106042-I	1202035-9	2/2/2012	2/8/2012	02/10/2012	N/A	1	0.00006	0.0002	0.00006	U	20 g
106043-I	1202035-19	2/2/2012	2/8/2012	02/10/2012	N/A	1	0.00006	0.0002	0.00006	U	20 g

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *hg1202035-1*

ICP Metals

Method SW6010B

Method Blank

Lab Name: **ALS Environmental -- FC**
Work Order Number: 1202035
Client Name: NMED Hazardous Waste Bureau
ClientProject ID: KAFB - BFF 1Q12

Lab ID: IP120206-4MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 06-Feb-12
Date Analyzed: 07-Feb-12

Prep Batch: IP120206-4
QCBatchID: IP120206-4-1
Run ID: IT120207-2A5
Cleanup: NONE
Basis: N/A
File Name: 120207A.

Sample Aliquot: 50 g
Final Volume: 50 g
Result Units: MG/L
Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	1	0.031	0.2	0.031	U	
7440-36-0	ANTIMONY	1	0.0036	0.02	0.0036	U	
7440-38-2	ARSENIC	1	0.0026	0.01	0.0026	U	
7440-39-3	BARIUM	1	0.0017	0.1	0.0017	U	
7440-41-7	BERYLLIUM	1	-0.0003	0.005	0.00018	B	
7440-43-9	CADMIUM	1	0.0008	0.005	0.0008	U	
7440-70-2	CALCIUM	1	0.13	1	0.13	U	
7440-47-3	CHROMIUM	1	0.0018	0.01	0.0018	U	
7440-48-4	COBALT	1	0.00088	0.01	0.00088	U	
7440-50-8	COPPER	1	-0.0024	0.01	0.0016	B	
7439-89-6	IRON	1	0.037	0.1	0.037	U	
7439-92-1	LEAD	1	0.0021	0.003	0.0021	U	
7439-95-4	MAGNESIUM	1	0.12	1	0.12	U	
7439-96-5	MANGANESE	1	0.0014	0.01	0.0014	U	
7440-02-0	NICKEL	1	0.0015	0.02	0.0015	U	
7440-09-7	POTASSIUM	1	0.36	1	0.36	U	
7782-49-2	SELENIUM	1	-0.0026	0.005	0.0022	B	
7440-22-4	SILVER	1	0.0016	0.01	0.0016	U	
7440-23-5	SODIUM	1	0.39	1	0.39	U	
7440-28-0	THALLIUM	1	0.0037	0.01	0.0037	U	
7440-62-2	VANADIUM	1	0.0016	0.01	0.0016	U	
7440-66-6	ZINC	1	0.0021	0.02	0.0021	U	

Data Package ID: *IT1202035-1*

ICP Metals

Method SW6010B

Laboratory Control Sample

Lab Name: **ALS Environmental -- FC**
Work Order Number: 1202035
Client Name: NMED Hazardous Waste Bureau
ClientProject ID: KAFB - BFF 1Q12

Lab ID: IP120206-4LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 02/06/2012
Date Analyzed: 02/07/2012
Prep Method: SW3005A

Prep Batch: IP120206-4
QCBatchID: IP120206-4-1
Run ID: IT120207-2A5
Cleanup: NONE
Basis: N/A
File Name: 120207A.

Sample Aliquot: 50 g
Final Volume: 50 g
Result Units: MG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7429-90-5	ALUMINUM	2	2.23	0.2		112	80 - 120%
7440-36-0	ANTIMONY	0.5	0.487	0.02		97	80 - 120%
7440-38-2	ARSENIC	2	2.09	0.01		104	80 - 120%
7440-39-3	BARIUM	2	2.07	0.1		104	80 - 120%
7440-41-7	BERYLLIUM	0.05	0.0501	0.005		100	80 - 120%
7440-43-9	CADMIUM	0.05	0.053	0.005		106	80 - 120%
7440-70-2	CALCIUM	40	38.1	1		95	80 - 120%
7440-47-3	CHROMIUM	0.2	0.198	0.01		99	80 - 120%
7440-48-4	COBALT	0.5	0.492	0.01		98	80 - 120%
7440-50-8	COPPER	0.25	0.261	0.01		105	80 - 120%
7439-89-6	IRON	1	1.01	0.1		101	80 - 120%
7439-92-1	LEAD	0.5	0.496	0.003		99	80 - 120%
7439-95-4	MAGNESIUM	40	36.8	1		92	80 - 120%
7439-96-5	MANGANESE	0.5	0.502	0.01		100	80 - 120%
7440-02-0	NICKEL	0.5	0.506	0.02		101	80 - 120%
7440-09-7	POTASSIUM	40	37.4	1		93	80 - 120%
7782-49-2	SELENIUM	2	2.11	0.005		105	80 - 120%
7440-22-4	SILVER	0.2	0.19	0.01		95	80 - 120%
7440-23-5	SODIUM	40	37	1		93	80 - 120%
7440-28-0	THALLIUM	2	2.06	0.01		103	80 - 120%
7440-62-2	VANADIUM	0.5	0.5	0.01		100	80 - 120%
7440-66-6	ZINC	0.5	0.506	0.02		101	80 - 120%

Data Package ID: *IT1202035-1*

ICP Metals

Method SW6010B

Matrix Spike And Matrix Spike Duplicate

Lab Name: **ALS Environmental -- FC**
Work Order Number: 1202035
Client Name: NMED Hazardous Waste Bureau
ClientProject ID: KAFB - BFF 1Q12

Field ID: 106043-J
LabID: 1202035-20MS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 02-Feb-12
Date Extracted: 06-Feb-12
Date Analyzed: 07-Feb-12
Prep Method: SW3005 Rev A

Prep Batch: IP120206-4
QCBatchID: IP120206-4-2
Run ID: IT120207-2A5
Cleanup: NONE
Basis: As Received

Sample Aliquot: 50 g
Final Volume: 50 g
Result Units: MG/L
File Name: 120207A.

CASNO	Target Analyte	Sample Result	Samp Qual	MS Result	MS Qual	Reporting Limit	Spike Added	MS % Rec.	Control Limits
7439-89-6	IRON	0.037	U	1.01		0.1	1	101	80 - 120%
7439-96-5	MANGANESE	0.0014	B	0.505		0.01	0.5	101	80 - 120%

Field ID: 106043-J
LabID: 1202035-20MSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 02-Feb-12
Date Extracted: 06-Feb-12
Date Analyzed: 07-Feb-12
Prep Method: SW3005 Rev A

Prep Batch: IP120206-4
QCBatchID: IP120206-4-2
Run ID: IT120207-2A5
Cleanup: NONE
Basis: As Received

Sample Aliquot: 50 g
Final Volume: 50 g
Result Units: MG/L
File Name: 120207A.

CASNO	Target Analyte	MSD Result	MSD Qual	Spike Added	MSD % Rec.	Reporting Limit	RPD Limit	RPD
7439-89-6	IRON	1.01		1	101	0.1	20	1
7439-96-5	MANGANESE	0.504		0.5	100	0.01	20	0

Data Package ID: *IT1202035-1*

ICP Metals

Method SW6010

Serial Dilution

Lab Name: **ALS Environmental -- FC**
Work Order Number: 1202035
Client Name: NMED Hazardous Waste Bureau
ClientProject ID: KAFB - BFF 1Q12

Field ID: 106043-J
Lab ID: 1202035-20L

Run ID: IT120207-2A5
Date Analyzed: 07-Feb-12
Result Units: mg/l

CASNO	Target Analyte	Sample Result	Samp Qual	SD Result	SD Qual	EPA Qualifier	%D
7439-89-6	IRON	0.100	U	0.500	U		
7439-96-5	MANGANESE	0.00143	B	0.0500	U		

Data Package ID: *IT1202035-1*

ICP Metals

Method SW6010

Duplicate Sample Results

Lab Name: **ALS Environmental -- FC**
Work Order Number: 1202035
Client Name: NMED Hazardous Waste Bureau
ClientProject ID: KAFB - BFF 1Q12

Field ID: 106043-J
Lab ID: 1202035-20D

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 02/02/2012
Date Extracted: 02/06/2012
Date Analyzed: 02/07/2012

Prep Batch: IP120206-4
QCBatchID: IP120206-4-2
Run ID: IT120207-2A5
Cleanup: NONE
Basis: As Received
File Name: 120207A.

Sample Aliquot: 50 g
Final Volume: 50 g
Result Units: MG/L
Clean DF: 1

CASNO	Target Analyte	Sample Result	Samp Qual	Duplicate Result	Dup Qual	Reporting Limit	Dilution Factor	RPD	RPD Limit
7439-89-6	IRON	0.037	U	0.0366	U	0.1	1		20
7439-96-5	MANGANESE	0.0014	B	0.00143	U	0.01	1		20

Data Package ID: *IT1202035-1*

Mercury

Method SW7470A

Method Blank

Lab Name: **ALS Environmental -- FC**
Work Order Number: 1202035
Client Name: NMED Hazardous Waste Bureau
ClientProject ID: KAFB - BFF 1Q12

Lab ID: HG120208-1MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 08-Feb-12
Date Analyzed: 10-Feb-12

Prep Batch: HG120208-1
QCBatchID: HG120208-1-2
Run ID: HG120210-1A5
Cleanup: NONE
Basis: N/A
File Name: HG120208-1

Sample Aliquot: 20 g
Final Volume: 20 g
Result Units: MG/L
Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier
7439-97-6	MERCURY	1	0.0002	0.0002	0.00006	U	

Data Package ID: *hg1202035-1*

Mercury

Method SW7470A

Laboratory Control Sample

Lab Name: **ALS Environmental -- FC**
Work Order Number: 1202035
Client Name: NMED Hazardous Waste Bureau
ClientProject ID: KAFB - BFF 1Q12

Lab ID: HG120208-1LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 02/08/2012
Date Analyzed: 02/10/2012
Prep Method: METHOD

Prep Batch: HG120208-1
QCBatchID: HG120208-1-2
Run ID: HG120210-1A5
Cleanup: NONE
Basis: N/A
File Name: HG120208-1

Sample Aliquot: 20 g
Final Volume: 20 g
Result Units: MG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7439-97-6	MERCURY	0.001	0.001	0.0002		100	80 - 120%

Data Package ID: *hg1202035-1*