DataVal, Inc.

TO: Carl Brickner
Environmental Scientist
USEPA Region 9 Quality Assurance Office (PMD-3)

FROM: Donna Breaux DB 3/25/06
Senior Reviewer, DataVal, Inc.

DATE: March 24, 2006

SUBJECT: Review of Analytical Data

Attached are comments resulting from DataVal's review of the following analytical data:

SITE:	Alhambra Nov. 2003 Groundwater Monitoring
SITE ACCOUNT NO.:	09 ES LA 00
CERCLIS ID NO.:	CAD980818579
CASE NO.:	R04S07
SDG NO.:	03309A
LABORATORY:	Region 9 Laboratory, Richmond, CA
ANALYSES:	Metals (200.7/200.8/245.1), Nitrate as Nitrogen (300.0) and Perchlorate (314.0)
SAMPLE NO.:	11 Water Samples (See Case Summary)
COLLECTION DATES:	November 4, 5, 6 and 7, 2003
REVIEWERS:	Lisa Norosky/Donna Breaux, DataVal, Inc.

If there are any questions, please contact Donna Breaux at (415) 883-2780.

Attachment

TPO: [ ]FYI [X]Attention [ ]Action

SAMPLING ISSUES: [X]Yes [ ]No

Data Validation Report

Case No.: R04S07
Site: Alhambra November 2003 Groundwater Monitoring
Laboratory: Region 9 Laboratory, Richmond, CA
Reviewer: Lisa Norosky/Donna Breaux, DataVal, Inc.
Date: March 24, 2006

I. Case Summary

SAMPLE INFORMATION:

Concentration and Matrix:	Low Concentration Waters
Analyses:	Metals (200.7/200.8/245.1), Nitrate as Nitrogen (300.0) and Perchlorate (314.0)
Samples in SDG 03309A:	AH03201, AH03202, AH03203, AH03204, AH03205, AH03206, AH03207, AH03208, AH03209, AH03211 and AH03210
Collection Date:	November 4, 5, 6 and 7, 2003
Sample Receipt Date:	November 5, 6, 7 and 10, 2003

FIELD QC:

Field Blanks (FB):	AH03203 and AH03205
Equipment Blanks (EB):	AH03209
Background Samples (BG):	None.
Field Duplicates (D1):	AH03201 and AH03202

LABORATORY QC:

Matrix Spikes:	AH03201, AH03204, AH03209 and AH03210
Duplicates:	None.

ANALYSES: Metals (200.7/200.8/245.1), Nitrate as Nitrogen (300.0) and Perchlorate (314.0)

Analyte	Sample Preparation and Digestion Date	Analysis Date
ICP Metals	November 13, 2003	November 14, 2003
ICP/MS Metals	November 13, 2003	November 24 & 25, 2003
Mercury	November 12, 2003	November 13, 2003
Nitrate as N	November 5 – 11, 2003	November 5 – 11, 2003
Perchlorate	November 12 and 14, 2003	November 12 & 14, 2003

METHOD BLANKS AND ASSOCIATED SAMPLES:

Metals:

B3K0024-BLK1: AH03201, AH03202, AH03203, AH03204, AH03205, AH03206, AH03207, AH03208, AH03209, AH03211 and AH03210

B3K0025-BLK1: AH03201, AH03202, AH03203, AH03204, AH03205, AH03206, AH03207, AH03208, AH03209, AH03211 and AH03210

B3K0023-BLK1: AH03201, AH03202, AH03203, AH03204, AH03205, AH03206, AH03207, AH03208, AH03209, AH03211 and AH03210

Nitrate as N:

B3K0005-BLK1/BLK2: AH03201, AH03202 and AH03203

B3K0010-BLK1/BLK2: AH03204, AH03205 and AH03206

B3K0012-BLK1/BLK2: AH03207, AH03208, AH03209 and AH03211

B3K0020-BLK1/BLK2: AH03210

Perchlorate:

B3K0021-BLK1/BLK2: AH03201, AH03202, AH03203, AH03204, AH03205, AH03207, AH03208, AH03209 and AH03211

B3K0029-BLK1/BLK2: AH03206 and AH03210

TABLES:

1A: Analytical Results with Qualifications

1B: Data Qualifier Definitions for Inorganic Data Review

TPO ATTENTION:

The result for nitrate as nitrogen in sample AH03210 is estimated (J) because the technical holding time was exceeded.

SAMPLING ISSUES:

The result for nitrate as nitrogen in sample AH03210 is estimated (J) because the technical holding time was exceeded. Sample AH03210 was received at the laboratory past the recommended holding time of 48 hours.

The results for zinc in samples AH03204 and AH03206 were qualified as non-detected (U) because of field blank contamination.

ADDITIONAL COMMENTS:

In addition to the laboratory SOPs, this report was prepared according to the following documents:

- *Standard Methods for the Examination of Water and Wastewater*, 19th Edition (1995)
- *Methods for the Determination of Organic and Inorganic Compounds in Drinking Water* (EPA 815-R-00-014, August 2000)
- *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, October 2004.

All samples in sample delivery group (SDG) 03309A received full validation. This included re-calculation of all reported results for all samples included in this SDG. The reported values for metals, nitrate and perchlorate were verified as correctly reported by the laboratory.

II. Validation Summary

The data were evaluated based on the following parameters:

Parameter		Acceptable	Comment
1.	Data Completeness	Yes	
2.	Sample Preservation and Holding Times	No	B
3.	Calibration	No	
	a. Initial Calibration Verification		
	b. Continuing Calibration Verification		D
	c. Calibration Blank		
	d. CRDL Standard		
4.	Blanks	No	
	a. Laboratory Preparation Blank		
	b. Field Blank		C
	c. Equipment Blank		
5.	ICP Interference Check Sample Analysis	N/A	
6.	Laboratory Control Sample Analysis	Yes	
7.	Spiked Sample Analysis	Yes	
8.	Laboratory Duplicate Sample Analysis	N/A	
9.	Field Duplicate Sample Analysis	Yes	
10.	GFAA QC Analysis	N/A	
	a. Duplicate Injections		
	b. Analytical Spikes		
	c. Method of Standard Addition		
11.	ICP Serial Dilution Analysis	N/A	
12.	Sample Quantitation	Yes	A
13.	Sample Result Verification	Yes	E

N/A = Not Applicable

III. Validity and Comments

A. The following results are estimated and are flagged "J" in Table 1A.

- All results above the instrument detection limit but below the detection limit (denoted with an "L" qualifier)

Results above the instrument detection limit (IDL) for waters but below the detection limit (DL) are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

B. The following result is estimated because the technical holding time was exceeded. The result is flagged "J" in Table 1A.

- Nitrate as nitrogen in sample AH03210

The 40 CFR 136 (Clean Water Act) technical holding time of 48 hours for nitrate as nitrogen was exceeded as shown below.

Sample Number	Date/Time Collected	Date Received	Date/Time Analyzed	# of hours Exceeded
AH03210	Nov. 7, 2003 @ 11:00	Nov. 10, 2003	Nov.11, 2003 @ 13:39	50.5

The sample result may be biased low.

The 40 CFR 136 (Clean Water Act) technical holding times were not exceeded for the other analytes in any of the samples.

C. The following results are qualified because of field blank contamination. The results are flagged "U" in Table 1A.

- Zinc in samples AH03204 and AH03206

Zinc was found field blank AH03205 at a concentration of 2.9 ug/L. The results for the samples listed above are considered non-detected and estimated (U,J) and the quantitation limits have been increased according to the blank qualification rules presented below.

Sample results greater than the IDL are qualified as non-detected (U) unless

the concentration of the analyte in the sample exceeds 5 times the amount in any associated blank.

A field blank is clean water prepared as a sample in the field by the sampler and shipped to the laboratory with the samples. A field blank is intended to detect contaminants that may have been introduced in the field. Contaminants that are found in the field blank which are absent in the laboratory preparation blank could be indicative of a field QC problem, a deficiency in the bottle preparation procedure, a difference in preparation of the laboratory and field blanks, or other indeterminate source of contamination.

D. The detected results and quantitation limits for the following analyte are estimated due to continuing calibration results outside QC acceptance limits. The results are flagged "J" in Table 1A.

- Copper in samples AH03201, AH03204 and AH03206

A percent recovery of 111% was observed for copper in the continuing calibration performed November 4, 2003 at 15:10. This value exceeds the 90% - 110% QC advisory validation criterion.

The continuing calibration checks the instrument performance daily.

E. The reported results for metals indicates that field duplicate sample AH03202 was inadvertently switched by the laboratory with field blank sample AH03205. Field blank sample AH03205 had detected results that matched field duplicate sample AH03201; and field duplicate sample AH03202 was non-detect for all metals, with the exception of a low level result for zinc. In order to evaluate field blank and field duplicate data for the metals analyses an assumption was made by the data validator that the metals results reported for sample field duplicate AH03202 should have been reported for field blank sample AH03205, and the metals results reported for field blank sample AH03205 should have been reported for field duplicate sample AH03202.

ANALYTICAL RESULTS
TABLE 1A

Case Number: R04S07
Site: Alhambra
SDG: 03309A
Lab: USEPA Region 9 Laboratory
Reviewer: Lisa Norosky, DataVal, Inc.
Date: 24-Mar-06

Analysis: Perchlorate
Matrix: Water

Station Location	FD1				FD1				FB			
Sample ID	AH03201				AH03202				AH03203			
Lab Sample ID	0311002-01				0311002-02				0311002-03			
Date of Collection	4-Nov-03				4-Nov-03				4-Nov-03			
Units	ug/L				ug/L				ug/L			
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com
Perchlorate	4.7				5.0				2.0	U		

Station Location	AH03204				FB				AH03206			
Sample ID	AH03204				AH03205				AH03206			
Lab Sample ID	0311007-01				0311007-02				0311007-03			
Date of Collection	5-Nov-03				5-Nov-03				5-Nov-03			
Units	ug/L				ug/L				ug/L			
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com
Perchlorate	1.9	L	J	A	2.0	U			2.0	U		

Station Location	AH03207				AH03208				EB			
Sample ID	AH03207				AH03208				AH03209			
Lab Sample ID	0311010-01				0311010-02				0311010-03			
Date of Collection	6-Nov-03				6-Nov-03				6-Nov-03			
Units	ug/L				ug/L				ug/L			
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com
Perchlorate	2.0	U			2.0	U			2.0	U		

Station Location	AH03211				AH03210							
Sample ID	AH03211				AH03210				Method Blank			
Lab Sample ID	0311010-04				0311016-01				B3K0021-BLK1			
Date of Collection	6-Nov-03				7-Nov-03				11-Nov-03			
Units	ug/L				ug/L				ug/L			
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com
Perchlorate	2.0	U			2.0	U			2.0	U		

Station Location												
Sample ID	Method Blank				Method Blank				Method Blank			
Lab Sample ID	B3K0021-BLK2				B3K0029-BLK1				B3K0029-BLK2			
Date of Collection	12-Nov-03				13-Nov-03				13-Nov-03			
Units	ug/L				ug/L				ug/L			
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com
Perchlorate	2.0	U			2.0	U			2.0	U		

Station Location	
Sample ID	QL
Lab Sample ID	
Date of Collection	
Units	ug/L
Analyte	Result
Perchlorate	2.0

Val-Validity Refer to Data Qualifiers in Table 1B.
Com-Comments Refer to the Corresponding Section in the Narrative for each letter.
N/A-Not Applicable, NA-Not Analyzed

ANALYTICAL RESULTS
TABLE 1A

Case Number: R04S07
Site: Alhambra
SDG: 03309A
Lab: USEPA Region 9 Laboratory
Reviewer: Lisa Norosky, DataVal, Inc.
Date: 24-Mar-06

Analysis: Nitrate as N
Matrix: Water

Station Location	FD1				FD1				FB			
Sample ID	AH03201				AH03202				AH03203			
Lab Sample ID	0311002-01				0311002-02				0311002-03			
Date of Collection	4-Nov-03				4-Nov-03				4-Nov-03			
Units	mg/L				mg/L				mg/L			
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com
Nitrate as N	12				12				0.1	U		

Station Location	AH03204				FB				AH03206			
Sample ID	AH03204				AH03205				AH03206			
Lab Sample ID	0311007-01				0311007-02				0311007-03			
Date of Collection	5-Nov-03				5-Nov-03				5-Nov-03			
Units	mg/L				mg/L				mg/L			
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com
Nitrate as N	1.1				0.1	U			0.1	U		

Station Location	AH03207				AH03208				EB			
Sample ID	AH03207				AH03208				AH03209			
Lab Sample ID	0311010-01				0311010-02				0311010-03			
Date of Collection	6-Nov-03				6-Nov-03				6-Nov-03			
Units	mg/L				mg/L				mg/L			
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com
Nitrate as N	0.1	U			0.88				0.1	U		

Station Location	AH03211				AH03210							
Sample ID	AH03211				AH03210				Method Blank			
Lab Sample ID	0311010-04				0311016-01				B3K0005-BLK1			
Date of Collection	6-Nov-03				7-Nov-03				5-Nov-03			
Units	mg/L				mg/L				mg/L			
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com
Nitrate as N	4.1				7.7		J	B	0.1	U		

Station Location												
Sample ID	Method Blank				Method Blank				Method Blank			
Lab Sample ID	B3K0005-BLK2				B3K0010-BLK1				B3K0010-BLK2			
Date of Collection	5-Nov-03				6-Nov-03				6-Nov-03			
Units	mg/L				mg/L				mg/L			
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com
Nitrate as N	0.10	U			0.10	U			0.10	U		

Station Location												
Sample ID	Method Blank				Method Blank				Method Blank			
Lab Sample ID	B3K0012-BLK1				B3K0012-BLK2				B3K0020-BLK1			
Date of Collection	7-Nov-03				7-Nov-03				11-Nov-03			
Units	mg/L				mg/L				mg/L			
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com
Nitrate as N	0.10	U			0.10	U			0.10	U		

Station Location					
Sample ID	Method Blank				QL
Lab Sample ID	B3K0020-BLK2				
Date of Collection	11-Nov-03				
Units	mg/L				mg/L
Analyte	Result	Q	Val	Com	Result
Nitrate as N	0.10	U			0.10

Val-Validity Refer to Data Qualifiers in Table 1B.
Com-Comments Refer to the Corresponding Section in the Narrative for each letter.
N/A-Not Applicable, NA-Not Analyzed

ANALYTICAL RESULTS
TABLE 1A

Case Number: R04S07
Site: Alhambra
SDG: 03309A
Lab: USEPA Region 9 Laboratory
Reviewer: Lisa Norosky, DataVal, Inc.
Date: 24-Mar-06

Analysis: Metals
Matrix: Water

Station Location	FD1				FD1				FB				AH03204			
Sample ID	AH03201				AH03202				AH03203				AH03204			
Lab Sample ID	0311002-01				0311002-02				0311002-03				0311007-01			
Date of Collection	4-Nov-03				4-Nov-03				4-Nov-03				5-Nov-03			
Units	ug/L				ug/L				ug/L				ug/L			
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com
Aluminum	40	U		E	10	U		E	10	U			40	U		
Antimony	1.0	U		E	1.0	U		E	1.0	U			1.0	U		
Arsenic	0.85			E	0.50	U		E	0.50	U			1.0			
Barium	99			E	1.0	U		E	1.0	U			84			
Beryllium	0.50	U		E	0.50	U		E	0.50	U			0.50	U		
Boron	120			E	100	U		E	100	U			150			
Cadmium	1.0	U		E	1.0	U		E	1.0	U			1.0	U		
Calcium	98000			E	100	U		E	100	U			65000			
Chromium	3.4			E	1.0	U		E	1.0	U			1.0	U		
Cobalt	0.50	U		E	0.50	U		E	0.50	U			0.50	U		
Copper	1.2	L	J	ADE	2.0	U		E	2.0	U			1.1	L	J	AD
Iron	160			E	100	U		E	100	U			100	U		
Lead	1.0	U		E	1.0	U		E	1.0	U			1.0	U		
Magnesium	36000			E	500	U		E	500	U			32000			
Manganese	10			E	1.0	U		E	1.0	U			45			
Mercury	0.030	U		E	0.030	U		E	0.030	U			0.032			
Molybdenum	8.9			E	0.50	U		E	0.50	U			16			
Nickel	3.7			E	1.0	U		E	1.0	U			2.8			
Potassium	5000	U		E	5000	U		E	5000	U			3500	L	J	A
Selenium	2.3			E	1.0	U		E	1.0	U			1.0			
Silver	0.50	U		E	0.50	U		E	0.50	U			0.50	U		
Sodium	75000			E	500	U		E	500	U			85000			
Thallium	1.0	U		E	1.0	U		E	1.0	U			1.0	U		
Vanadium	20	U		E	20	U		E	20	U			20	U		
Zinc	11			E	2.9	L	J	AE	5.0	U			4.6		UJ	C

Val-Validity Refer to Data Qualifiers in Table 1B.
Com-Comments Refer to the Corresponding Section in the Narrative for each letter.
N/A-Not Applicable, NA-Not Analyzed

FD1, FD2, etc.- Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Trip Blank
BG-Background Sample

ANALYTICAL RESULTS
TABLE 1A

Case Number: R04S07
Site: Alhambra
SDG: 03309A
Lab: USEPA Region 9 Laboratory
Reviewer: Lisa Norosky, DataVal, Inc.
Date: 24-Mar-06

Analysis: Metals
Matrix: Water

Station Location	FB				AH03206				AH03207				AH03208			
Sample ID	AH03205				AH03206				AH03207				AH03208			
Lab Sample ID	0311007-02				0311007-03				0311010-01				0311010-02			
Date of Collection	5-Nov-03				5-Nov-03				6-Nov-03				6-Nov-03			
Units	ug/L				ug/L				ug/L				ug/L			
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com
Aluminum	40	U		E	10	U			10	U			10	U		
Antimony	1.0	U		E	1.0	U			1.0	U			1.0	U		
Arsenic	0.94			E	2.0				1.7				1.3			
Barium	97			E	32				21				22			
Beryllium	0.50	U		E	0.50	U			0.50	U			0.50	U		
Boron	120			E	110				73	L	J	A	55	L	J	A
Cadmium	1.0	U		E	1.0	U			1.0	U			1.0	U		
Calcium	96000			E	45000				24000				25000			
Chromium	3.3			E	1.0	U			1.0	U			1.4			
Cobalt	0.50	U		E	0.50	U			0.50	U			0.50	U		
Copper	2.0	U		E	1.5	L	J	AD	2.0	U			1.2	L	J	A
Iron	160			E	100	U			100	U			100	U		
Lead	1.0	U		E	1.0	U			1.0	U			1.0	U		
Magnesium	36000			E	14000				9400				14000			
Manganese	11			E	88				8.7				0.69	L	J	A
Mercury	0.030	U		E	0.030	U			0.030	U			0.030	U		
Molybdenum	9.1			E	31				15				8.8			
Nickel	3.8			E	1.8				0.92	L	J	A	0.82	L	J	A
Potassium	2900	L	J	AE	3900	L	J	A	5000	U			2600	L	J	A
Selenium	2.4			E	1.0	U			1.0	U			1.1			
Silver	0.50	U		E	0.50	U			0.50	U			0.50	U		
Sodium	76000			E	130000				39000				39000			
Thallium	1.0	U		E	1.0	U			1.0	U			1.0	U		
Vanadium	20	U		E	20	U			20	U			20	U		
Zinc	7.2			E	6.3		UJ	C	8.4				9.6			

Val-Validity Refer to Data Qualifiers in Table 1B.
Com-Comments Refer to the Corresponding Section in the Narrative for each letter.
N/A-Not Applicable, NA-Not Analyzed

FD1, FD2, etc.- Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Trip Blank
BG-Background Sample

ANALYTICAL RESULTS
TABLE 1A

Case Number: R04S07
Site: Alhambra
SDG: 03309A
Lab: USEPA Region 9 Laboratory
Reviewer: Lisa Norosky, DataVal, Inc.
Date: 24-Mar-06

Analysis: Metals
Matrix: Water

Station Location	EB				AH03211				AH03210				Method Blank			
Sample ID	AH03209				AH03211				AH03210				B3K0023-BLK1			
Lab Sample ID	0311010-03				0311010-04				0311016-01				13-Nov-03			
Date of Collection	6-Nov-03				6-Nov-03				7-Nov-03							
Units	ug/L				ug/L				ug/L				ug/L			
Analyte	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com	Result	Q	Val	Com
Aluminum	10	U			10	U			40	U			NA			
Antimony	1.0	U			1.0	U			1.0	U			NA			
Arsenic	0.50	U			1.3				0.69				NA			
Barium	1.0	U			32				55				NA			
Beryllium	0.50	U			0.50	U			0.50	U			NA			
Boron	100	U			75	L	J	A	73	L	J	A	NA			
Cadmium	1.0	U			1.0	U			1.0	U			NA			
Calcium	100	U			51000				71000				NA			
Chromium	1.0	U			4.8				5.3				NA			
Cobalt	0.50	U			0.50	U			0.50	U			NA			
Copper	2.0	U			2.0	U			2.0	U			NA			
Iron	100	U			100	U			100	U			NA			
Lead	1.0	U			1.0	U			1.0	U			NA			
Magnesium	500	U			17000				22000				NA			
Manganese	1.0	U			1.0	U			0.96	L	J	A	NA			
Mercury	0.030	U			0.030	U			0.030	U			0.030	U		
Molybdenum	0.50	U			5.8				5.3				NA			
Nickel	1.0	U			1.5				2.5				NA			
Potassium	5000	U			5000	U			2900	L	J	A	NA			
Selenium	1.0	U			0.67	L	J	A	0.61	L	J	A	NA			
Silver	0.50	U			0.50	U			0.50	U			NA			
Sodium	500	U			28000				29000				NA			
Thallium	1.0	U			1.0	U			1.0	U			NA			
Vanadium	20	U			20	U			20	U			NA			
Zinc	5.0	U			5.5				52				NA			

Val-Validity Refer to Data Qualifiers in Table 1B.
Com-Comments Refer to the Corresponding Section in the Narrative for each letter.
N/A-Not Applicable, NA-Not Analyzed

FD1, FD2, etc.- Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Trip Blank
BG-Background Sample

ANALYTICAL RESULTS
TABLE 1A

Case Number: R04S07
Site: Alhambra
SDG: 03309A
Lab: USEPA Region 9 Laboratory
Reviewer: Lisa Norosky, DataVal, Inc.
Date: 24-Mar-06

Analysis: Metals
Matrix: Water

Station Location Sample ID Lab Sample ID Date of Collection Units Analyte	Method Blank B3K0024-BLK1 14-Nov-03 ug/L Result	Q	Val	Com	Method Blank B3K0025-BLK1 24-Nov-03 ug/L Result	Q	Val	Com	QL ug/L Result
Aluminum	NA				10	U			10
Antimony	NA				1.0	U			1.0
Arsenic	NA				0.50	U			0.50
Barium	NA				1.0	U			1.0
Beryllium	NA				0.50	U			0.50
Boron	100	U			NA				100
Cadmium	NA				1.0	U			1.0
Calcium	100	U			NA				100
Chromium	NA				1.0	U			1.0
Cobalt	NA				0.50	U			0.50
Copper	NA				2.0	U			2.0
Iron	100	U			NA				100
Lead	NA				1.0	U			1.0
Magnesium	500	U			NA				500
Manganese	NA				1.0	U			1.0
Mercury	NA				NA				0.030
Molybdenum	NA				0.50	U			0.50
Nickel	NA				1.0	U			1.0
Potassium	5000	U			NA				5000
Selenium	NA				1.0	U			1.0
Silver	NA				0.50	U			0.50
Sodium	500	U			NA				500
Thallium	NA				1.0	U			1.0
Vanadium	20	U			NA				20
Zinc	NA				5.0	U			5.0

Val-Validity Refer to Data Qualifiers in Table 1B.
Com-Comments Refer to the Corresponding Section in the Narrative for each letter.
N/A-Not Applicable, NA-Not Analyzed

FD1, FD2, etc.- Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Trip Blank
BG-Background Sample

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR INORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared in accordance with the document "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review," October 2004.

U The analyte was analyzed for, but was not detected above the level of the reported value. The reported value is either the sample quantitation limit or the sample detection limit for all the analytes except Cyanide (CN) and Mercury (Hg). For CN and Hg, the reported value is the Quantitation Limit (QL).

L Indicates results which fall between the sample detection limit and the QL. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

J The associated value is an estimated quantity. The analyte was analyzed for and was positively identified, but the reported numerical value may not be consistent with the amount actually present in the environmental sample.

R The data are unusable. The analyte was analyzed for, but the presence or absence of the analyte can not be verified.

UJ A combination of the "U" and the "J" qualifier. The analyte was analyzed for but was not detected. The reported value is an estimate and may be inaccurate or imprecise.

TPO: [ ]FYI [X]Attention [ ]Action Region 9

INORGANIC REGIONAL DATA ASSESSMENT

CASE NO. R04S07 LABORATORY USEPA Region 9 Laboratory

SDG NO. 03309A SITE NAME Alhambra Nov. 2003 Groundwater Monitoring

SOW N/A REVIEW COMPLETION DATE 3/24/06

REVIEWER'S NAME Lisa Norosky/Donna Breaux, DataVal, Inc.

NO. OF SAMPLES 11 WATER ___ SOIL ___ OTHER

	Metals	Perchlorate	Nitrate as N
1. PRESERVATION AND HOLDING TIMES	O	O	X
2. CALIBRATION	X	O	O
3. BLANKS	X	O	O
4. ICP INTERFERENCE CHECK SAMPLE (ICS)	N/A	N/A	N/A
5. LABORATORY CONTROL SAMPLE (LCS)	O	O	O
6. DUPLICATE ANALYSIS	N/A	N/A	N/A
7. MATRIX SPIKE ANALYSIS	O	O	O
8. METHOD OF STANDARD ADDITION (MSA)	N/A	N/A	N/A
9. ICP SERIAL DILUTION	N/A	N/A	N/A
10. SAMPLE QUANTITATION	O	O	O
11. SAMPLE VERIFICATION	O	O	O
12. GFAA ANALYTICAL SPIKE	N/A	N/A	N/A
13. OVERALL ASSESSMENT	X	O	X

O = Data have no problems or problems that do not affect data quality.
X = Data are qualified due to minor problems.
M = Data are qualified due to major problems.
Z = Data are unacceptable.
N/A = Not Applicable.

TPO ACTION: None.

TPO ATTENTION: The result for nitrate as nitrogen in sample AH03210 is estimated (J) because the technical holding time was exceeded.

AREAS OF CONCERN: None.

DATA VALIDATION WORKSHEETS

Data Validation Worksheet
Metals

Project Name: Alhambra
Project Number: R04S07
Analysis: Metals
Method Number: 200.7, 200.8, 245.1
Laboratory Name: USEPA Region 9 Laboratory

Performed by/Date: EJN 1/5/06

Reviewed by/Date: APJ 2/17/06

Qualified Data? NO____ YES__X__, see page(s)__27__

SDG Number	Date Sampled	#Samples/Matrix	Validation Level
03309A	04-Nov-03 thru 07-Nov-03	11 Waters	IV

Data review was performed using the following documents as guidelines (check all that are applicable):

[X] USEPA CLP National Functional Guidelines for Inorganic Data Review (NFG Ing.), October 2004
[X] Project guidance document(s): **EPA Region IX Laboratory SOP #s 505r4, 507r4, 515r4**
[ ] Analysis method(s)

[ ] **Validated using QuikVal** (See attached QuikVal sheets for Holding Time, LCS and MS/MSD evaluation)

ITEMS CHECKED - LEVEL III
(Where Applicable)
Sample Receiving
Electronic Data Deliverables
Case Narrative
Holding Times
Instrument Run Logs
Initial Instrument Calibration
Continuing Instrument Calibration
Method Blanks
Laboratory Control Samples
Matrix Spikes/Matrix Spike Duplicates
Laboratory Duplicates
Field Duplicates
Field QC Blanks
Reporting Limits

ITEMS CHECKED - LEVEL IV
(Where Applicable)
Sample Receiving
Electronic Data Deliverables
Case Narrative
Holding Times
Instrument Run Logs
Initial Instrument Calibration
Continuing Instrument Calibration
Method Blanks
Laboratory Control Samples
Matrix Spikes/Matrix Spike Duplicates
Laboratory Duplicates
Field Duplicates
Field QC Blanks
Reporting Limits

ITEMS CHECKED - LEVEL IV continued
(Where Applicable)
CRI/CRA Standards
Linearity Check Standards
ICP Interference Check Samples
ICP Serial Dilutions
Furnace QC
Raw Data
Re-calculation of reported results
Digestion Logs
Instrument Detection Limits
Method Detection Limits

SAMPLE RECEIVING

	YES	NO	N/A
All COC forms relinquished and received with signature/date?	X		
Reported sample IDs match those listed on COC?	X		
Reported analyses/methods match those listed on COC?	X		
Lab report includes results for every sample/analysis as listed on COC?	X		
Cooler Receipt form present?	X		
Cooler Receipt form filled in completely and signed?	X		
Temperature recorded from:	Not noted		
Recorded temperature between 2C and 6C?	X		

List of Anomalies/Recommended Actions

X **No action required**

ELECTRONIC DATA DELIVERABLES

	YES	NO	N/A
Are EDDs included with the data package?	X		
Does client require EDD check against hardcopy?		X	
Were all EDDs verified against hardcopy results?			X
Did all EDD results match reported results?			X
Were anomalies noted?			X
Was the project office/lab notified?			X

List of Anomalies/Recommended Actions

☐ **No action required**

CLIENT NOTIFICATION

Add Memo Items of Missing Info./Corrections Below	**Response Received? YES**	**NO**
☐ **There were no memo items for this project.**		
It seems obvious from the data for metals analyses that Field Duplicate sample AH03202 (0311002-02) was switched with Field Blank sample AH03205 (0311007-02). Sample AH03205 (0311007-02) had hits that matched Field Duplicate sample AH03201 (0311002-01); sample AH03202 (0311002-02) was clean, with the exception of a low level result for zinc. In order to evaluate field blank and field duplicate data herein the results for sample AH03202 will be used in place of the results for sample AH03205, and the results for sample AH03205 will be used in place of the results for sample AH03202. This will be noted in the final report.	X	

CASE NARRATIVES/LABORATORY REPORT FOOTNOTES

	YES	NO	N/A
Case Narrative present in data package?		X	
Are anomalies noted in the CN? (if yes, place an 'X' below)			X
Are anomalies noted in report footnotes? (if yes, place an 'X' below)	X		

THE FOLLOWING ANOMALIES WERE NOTED IN CASE NARRATIVES/LABORATORY REPORT FOOTNOTES:

Sample Delivery Group (SDG) Number:	**03309A**					
Missed analysis holding time						
Method blank contamination						
Instrument blank contamination						
LCS and/or LCS RPD failure						
MS/MSD and/or MS/MSD RPD failure	X(1)					
Laboratory duplicate failure						
Analyte identification anomaly						
Correlation coefficient fails criteria in the ICAL						
Other ICAL anomalies						
% Recovery fails criteria in the ICV/CCV						
Other CCV anomalies						
Value exceeding the linear range of the instrument						
Result reported below the quantition limit						
Serial dilution %D failure						
Other notations (list below)						

List of Anomalies

☐ **No anomalies were noted in the case narrative(s)/laboratory report footnotes included with this project.**

(1) NOT MEANINGFUL DUE TO THE 4X RULE.

HOLDING TIMES
Enter Date as mo/day/year
DBE and DBA calculated automatically

METHODS 200.7 & 200.8

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received	Preservation & Temp	Prep Date	Analysis Date	DBE	DBA	Comments
AH03201 (FD1)	0311002-01	Water	4-Nov-03	5-Nov-03	HNO3, 3C	13-Nov-03	24-Nov-03	8	19	
AH03202 (FD1)	0311002-02	Water	4-Nov-03	5-Nov-03	HNO3, 3C	13-Nov-03	24-Nov-03	8	19	
AH03203 (FB)	0311002-03	Water	4-Nov-03	5-Nov-03	HNO3, 3C	13-Nov-03	24-Nov-03	8	19	
AH03204	0311007-01	Water	5-Nov-03	6-Nov-03	HNO3, 4C/5C	13-Nov-03	24-Nov-03	8	19	
AH03205 (FB)	0311007-02	Water	5-Nov-03	6-Nov-03	HNO3, 4C/5C	13-Nov-03	25-Nov-03	8	20	
AH03206	0311007-03	Water	5-Nov-03	6-Nov-03	HNO3, 4C/5C	13-Nov-03	25-Nov-03	7	19	
AH03207	0311010-01	Water	6-Nov-03	7-Nov-03	HNO3, 5C	13-Nov-03	24-Nov-03	7	18	
AH03208	0311010-02	Water	6-Nov-03	7-Nov-03	HNO3, 5C	13-Nov-03	24-Nov-03	6	17	
AH03209 (EB)	0311010-03	Water	6-Nov-03	7-Nov-03	HNO3, 5C	13-Nov-03	24-Nov-03	6	17	
AH03211	0311010-04	Water	6-Nov-03	7-Nov-03	HNO3, 5C	13-Nov-03	24-Nov-03	6	17	
AH03210	0311016-01	Water	7-Nov-03	10-Nov-03	HNO3, 4C	13-Nov-03	25-Nov-03	6	18	

METHOD 245.1

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received	Preservation & Temp	Prep Date	Analysis Date	DBE	DBA	Comments
AH03201 (FD1)	0311002-01	Water	4-Nov-03	5-Nov-03	HNO3, 3C	12-Nov-03	13-Nov-03	7	8	
AH03202 (FD1)	0311002-02	Water	4-Nov-03	5-Nov-03	HNO3, 3C	12-Nov-03	13-Nov-03	7	8	
AH03203 (FB)	0311002-03	Water	4-Nov-03	5-Nov-03	HNO3, 3C	12-Nov-03	13-Nov-03	7	8	
AH03204	0311007-01	Water	5-Nov-03	6-Nov-03	HNO3, 4C/5C	12-Nov-03	13-Nov-03	7	8	
AH03205 (FB)	0311007-02	Water	5-Nov-03	6-Nov-03	HNO3, 4C/5C	12-Nov-03	13-Nov-03	7	8	
AH03206	0311007-03	Water	5-Nov-03	6-Nov-03	HNO3, 4C/5C	12-Nov-03	13-Nov-03	6	7	
AH03207	0311010-01	Water	6-Nov-03	7-Nov-03	HNO3, 5C	12-Nov-03	13-Nov-03	6	7	
AH03208	0311010-02	Water	6-Nov-03	7-Nov-03	HNO3, 5C	12-Nov-03	13-Nov-03	5	6	
AH03209 (EB)	0311010-03	Water	6-Nov-03	7-Nov-03	HNO3, 5C	12-Nov-03	13-Nov-03	5	6	
AH03211	0311010-04	Water	6-Nov-03	7-Nov-03	HNO3, 5C	12-Nov-03	13-Nov-03	5	6	
AH03210	0311016-01	Water	7-Nov-03	10-Nov-03	HNO3, 4C	12-Nov-03	13-Nov-03	5	6	

DBE = Days before extraction (extraction date - collection date)
DBA = Days before analysis (analysis date - collection date)

Recommended Actions

[X] **No action required**

WHERE ELEMENTS WERE ANALYZED ON VARIOUS DAYS, THE LAST DAY OF ANALYSIS WAS ENTERED ABOVE.

PRESERVATIVE & HOLDING TIME REQUIREMENTS:

		AQUEOUS SAMPLES		SOIL SAMPLES	
ANALYTE	**METHOD**	**PRESERVATIVE**	**HOLDING TIME**	**PRESERVATIVE**	**HOLDING TIME**
MERCURY	7470A/7471A	HN03, 4°C +/- 2°C	28 DAYS	4°C +/- 2°C	28 DAYS
ALL OTHER METALS	6010B, 6020, 7000 SERIES	HN03, 4°C +/- 2°C	6 MONTHS	4°C +/- 2°C	6 MONTHS

METHOD BLANK ANALYSES

	YES	NO	N/A
Preparation Blank for each matrix?	X		
ICB analyzed after ICV?	X		
CCB analyzed after each CCV?	X		
Form present?	X		
Did laboratory take appropriate corrective action for blank contamination greater than project acceptance criteria?			X

ACCEPTANCE CRITERIA REFERENCE: Client

ACCEPTANCE LEVEL FOR CONTAMINATION: <RL

LIST CONTAMINANTS DETECTED IN METHOD BLANKS
LIST CONTAMINANTS DETECTED IN CALIBRATION BLANKS (LEVEL IV ONLY)

Blank ID	Matrix	Element	Concen-tration	Units	5X/10X	Comments
					0	None
					0	
					0	
					0	
					0	
					0	

LIST ALL METHOD BLANKS AND THEIR ASSOCIATED SAMPLES

Blank ID	Analyte/ Method	Associated Samples
B3K0024-BLK1	200.7	AH03201, AH03202, AH03203, AH03204, AH03205, AH03206, AH03207, AH03208, AH03209, AH03211 and AH03210
B3K0025-BLK1	200.8	"
B3K0023-BLK1	245.1	"

List of Anomalies/Recommended Actions

X **No action required**

(1) Sample results greater than 10X blank amount.
(2) Sample results non-detect.
(3) No associated samples.

FIELD QC BLANK ANALYSES

FIELD BLANK ANALYSES

	YES	NO	N/A
Field Blank analyzed?	X		
Form present?	X		

EQUIPMENT BLANK ANALYSES

	YES	NO	N/A
Equipment/Rinse Blank analyzed?	X		
Form Present?	X		

LIST CONTAMINANTS DETECTED IN FIELD AND EQUIPMENT BLANKS

Blank ID	Laboratory ID	Matrix	Element	Concen-tration	Units	5X/10X	Comments
AH03203 (FB)	0311002-03						**None**
AH03205 (FB)	0311007-02	Water	Zinc	2.9	ug/L	**14.5**	**U 002**
AH03209 (EB)	0311010-03						**None**

List of Anomalies/Recommended Actions

☐ **No action required**

(1) Sample results greater than 5X blank amount.
(2) Sample results non-detect.
(3) No associated samples.

QUALIFY ZINC U 002 FOR SAMPLES 0311007-01, -03.

It seems obvious from the data for metals analyses that Field Duplicate sample AH03202 (0311002-02) was switched with Field Blank sample AH03205 (0311007-02). Sample AH03205 (0311007-02) had hits that matched Field Duplicate sample AH03201 (0311002-01); sample AH03202 (0311002-02) was clean, with the exception of a low level result for zinc. In order to evaluate field blank and field duplicate data herein the results for sample AH03202 will be used in place of the results for sample AH03205, and the results for sample AH03205 will be used in place of the results for sample AH03202. This will be noted in the final report.

LABORATORY CONTROL SAMPLES (LCS/LCSD)

	YES	NO	NA
Form present?	X		
%R and RPD within limits?	X		
Spike list match project required list?	X		
Results agree with raw data? (Level IV only)	X		

% RECOVERY AND RPD CALCULATION CHECK
Enter analysis date (mo/day/year), spike amount, LCS result, and LCSD result.
% Recoveries and RPD are automatically calculated.

Analysis Date	Spike Element	Spike Conc	LCS Result	LCSD Results	LCS %R	LCSD %R	RPD	Agree with lab?	QC Batch Number
13-Nov-03	Mercury	0.2	0.22	NA	110.00%	NA	NA	YES	B3K0023
14-Nov-03	Boron	300	320	NA	106.67%	NA	NA	YES	B3K0024
24-Nov-03	Nickel	40	40	NA	100.00%	NA	NA	YES	B3K0025

ACCEPTANCE CRITERIA REFERENCE: EPA Region 9 Laboratory SOPs 505, 507, 515

	%R	RPD
ACCEPTANCE LIMITS:	85-115	NA

LIST ALL RECOVERIES OUTSIDE PROJECT LIMITS

LCS ID	Spike Element	% Recovery	RPD	Comments
				None

Recommended Actions

X **No action required**

MATRIX SPIKE/MATRIX SPIKE DUPLICATE ANALYSIS(MS/MSD)

	YES	NO	NA
Form present?	X		
%R and RPD within limits?		X	
Spike list match project required list?	X		
Results agree with raw data? (Level IV only)	X		
Was a Post-Digestion Spike (PDS) analyzed?		X	
PDS %R within limits (75-125%)?			X

% RECOVERY AND RPD CALCULATION CHECK
Enter analysis date (mo/day/year), spike amount, sample result, MS result, and MSD result
IF sample result is ND, enter "0". % Recoveries and RPD are automatically calculated.

Analysis Date	Spiked Sample	Spike Element	Spike Conc	Sample Results	MS Result	MSD Results	MS %R	MSD %R	RPD	Agree with lab?	QC Batch Number
13-Nov-03	0311007-01	Mercury	0.2	0.032	0.27	0.25	119.00%	109.00%	7.69%	YES	B3K0023
13-Nov-03	0311010-03	Mercury	0.2	0	0.23	0.23	115.00%	115.00%	0.00%	YES	B3K0023
14-Nov-03	0311007-01	Iron	3000	0	3000	3000	100.00%	100.00%	0.00%	YES	B3K0024
14-Nov-03	0311016-01	Potassium	10000	2900	14000	14000	111.00%	111.00%	0.00%	YES	B3K0024
24-Nov-03	0311007-01	Cobalt	40	0	31	32	77.50%	80.00%	3.17%	YES	B3K0025
24-Nov-03	0311016-01	Zinc	40	52	89	88	92.50%	90.00%	1.13%	YES	B3K0025

ACCEPTANCE CRITERIA REFERENCE: EPA Region 9 Laboratory SOPs 505, 507, 515

	%R	RPD
ACCEPTANCE LIMITS:	70-130	20%

LIST ALL RECOVERIES OUTSIDE PROJECT LIMITS

Sample ID	Laboratory ID	Spike Element	% Recovery	RPD	Mx DF ≥ 5X?	4X Rule Applies?	Comments
AH03204	0311007-01	Calcium	300, 200	1(ok)	NO	YES	(1)
AH03204	0311007-01	Magnesium	150, 150	0(ok)	NO	YES	(1)
AH03204	0311007-01	Sodium	167, 167	0(ok)	NO	YES	(1)
AH03210	0311016-01	Calcium	100(ok), 200	1(ok)	NO	YES	(1)
AH03210	0311016-01	Sodium	133, 133	0(ok)	NO	YES	(1)

Recommended Actions

- [X] **No action required**
- [ ] **Laboratory reported RPDs based on % recoveries; appropriate method is to calculate RPDs based on concentrations.**
- [ ] **Spike levels differed for MS and MSD.**
- [ ] **Qualify all samples in QC batch, unless otherwise noted in project plan.**

(1) 4X Rule.
(2) Dilution factor ≥ 5X.
(3) The parent sample was associated with an unrelated site.

LABORATORY DUPLICATE SAMPLE ANALYSIS

	YES	NO	N/A
Form present?			X
One duplicate per every 20 samples?			X
All RPD within project limits?			X

List of Anomalies/Recommended Actions

☐ No action required

ENTER SAMPLE AND DUPLICATE RESULTS
% RPDs are automatically calculated.

Sample ID	Element	Sample Result	Duplicate Result	RPD	QC Batch Number
				#DIV/0!	
				#DIV/0!	
				#DIV/0!	
				#DIV/0!	
				#DIV/0!	
				#DIV/0!	

ACCEPTANCE CRITERIA REFERENCE:

ACCEPTANCE LIMITS: RPD

LIST ALL RECOVERIES OUTSIDE PROJECT LIMITS

Sample ID	Instrument	Element	RPD	Comments	QC Batch Number

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999.

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

TPO: [ ]FYI [X]Attention [ ]Action Region 9

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. R04S07 LABORATORY USEPA Region 9 Laboratory

SDG NO. 03309A SITE NAME Alhambra Nov. 2003 GW Monitoring

SOW N/A REVIEW COMPLETION DATE 3/24/06

REVIEWER'S NAME Lisa Norosky/Donna Breaux, DataVal, Inc.

NO. OF SAMPLES 18 WATER ___ SOIL ___ OTHER

		VOCs	SVOCs
1.	HOLDING TIMES/PRESERVATION	O	O
2.	GC-MS TUNE/GC PERFORMANCE	O	O
3.	INITIAL CALIBRATIONS	O	O
4.	CONTINUING CALIBRATIONS	X	O
5.	FIELD QC	X	X
6.	LABORATORY BLANKS	O	X
7.	SURROGATES	O	O
8.	MATRIX SPIKE/DUPLICATES	O	O
9.	LCS/DUPLICATES	X	O
10.	INTERNAL STANDARDS	O	O
11.	COMPOUND IDENTIFICATION	O	O
12.	COMPOUND QUANTITATION	O	O
13.	SYSTEM PERFORMANCE	O	O
14.	OVERALL ASSESSMENT	X	X