

## ANALYTICAL REPORT

Job Number: 280-14533-2

Job Description: Burkhart # 200300876

For:  
Colorado Oil&Gas Conservation Commision  
1120 Lincoln St.  
Suite 801  
Denver, CO 80203  
Attention: John Axelson



Approved for release.  
Lori A Parsons  
Project Manager I  
4/29/2011 1:12 PM

---

Lori A Parsons  
Project Manager I  
lori.parsons@testamericainc.com  
04/29/2011

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

**TestAmerica Laboratories, Inc.**

TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002  
Tel (303) 736-0100 Fax (303) 431-7171 [www.testamericainc.com](http://www.testamericainc.com)



# Table of Contents

Cover Title Page . . . . .	1
Data Summaries . . . . .	3
Report Narrative . . . . .	3
Sample Summary . . . . .	4
Executive Summary . . . . .	5
Method Summary . . . . .	6
Method / Analyst Summary . . . . .	7
Sample Datasheets . . . . .	8
QC Data Summary . . . . .	9
Data Qualifiers . . . . .	12
QC Association Summary . . . . .	13
Lab Chronicle . . . . .	14
Certification Summary . . . . .	16
Shipping and Receiving Documents . . . . .	17
Client Chain of Custody . . . . .	18
Sample Receipt Checklist . . . . .	19

## **CASE NARRATIVE**

**Client: Colorado Oil&Gas Conservation Commision**

**Project: Burkhart # 200300876**

**Report Number: 280-14533-2**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### **RECEIPT**

The samples were received on 04/13/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.4 C.

### **DISSOLVED METALS**

Sample BURKHART-WW-2 (280-14533-1) was analyzed for dissolved metals in accordance with EPA SW-846 Method 6010B. The samples were prepared on 04/27/2011 and analyzed on 04/28/2011.

No difficulties were encountered during the dissolved metals analysis.

All quality control parameters were within the acceptance limits.

## SAMPLE SUMMARY

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-14533-2

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Client Matrix</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>
280-14533-1	BURKHART-WW-2	Water	04/13/2011 0940	04/13/2011 1305

## EXECUTIVE SUMMARY - Detections

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-14533-2

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
--------------------------	------------------	--------------------	--------------------	-------	--------

---

No Detections

## METHOD SUMMARY

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-14533-2

Description	Lab Location	Method	Preparation Method
<b>Matrix: Water</b>			
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Total Recoverable or Dissolved Metals	TAL DEN		SW846 3005A
Sample Filtration	TAL DEN		FILTRATION

### Lab References:

TAL DEN = TestAmerica Denver

### Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## METHOD / ANALYST SUMMARY

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-14533-2

Method	Analyst	Analyst ID
SW846 6010B	Harre, John K	JKH

## Analytical Data

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-14533-2

Client Sample ID: BURKHART-WW-2

Lab Sample ID: 280-14533-1

Date Sampled: 04/13/2011 0940

Client Matrix: Water

Date Received: 04/13/2011 1305

---

### 6010B Metals (ICP)-Dissolved

Analysis Method: 6010B

Analysis Batch: 280-64501

Instrument ID: MT\_025

Prep Method: 3005A

Prep Batch: 280-64319

Lab File ID: 25A6042711.asc

Dilution: 1.0

Initial Weight/Volume: 50 mL

Analysis Date: 04/28/2011 0242

Final Weight/Volume: 50 mL

Prep Date: 04/27/2011 1500

Analyte	Result (ug/L)	Qualifier	RL
Cadmium	ND		5.0
Arsenic	ND		15
Lead	ND		9.0
Selenium	ND		15



## Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-14533-2

### Method Blank - Batch: 280-64319

Lab Sample ID: MB 280-64313/1-B  
Client Matrix: Water  
Dilution: 1.0  
Analysis Date: 04/28/2011 0238  
Prep Date: 04/27/2011 1500  
Leach Date: N/A

Analysis Batch: 280-64501  
Prep Batch: 280-64319  
Leach Batch: N/A  
Units: ug/L

### Method: 6010B Preparation: 3005A Dissolved

Instrument ID: MT\_025  
Lab File ID: 25A6042711.asc  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Cadmium	ND		5.0
Arsenic	ND		15
Lead	ND		9.0
Selenium	ND		15

### Lab Control Sample - Batch: 280-64319

Lab Sample ID: LCS 280-64313/2-B  
Client Matrix: Water  
Dilution: 1.0  
Analysis Date: 04/28/2011 0240  
Prep Date: 04/27/2011 1500  
Leach Date: N/A

Analysis Batch: 280-64501  
Prep Batch: 280-64319  
Leach Batch: N/A  
Units: ug/L

### Method: 6010B Preparation: 3005A Dissolved

Instrument ID: MT\_025  
Lab File ID: 25A6042711.asc  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cadmium	100	101	101	88 - 111	
Arsenic	1000	954	95	88 - 110	
Lead	500	496	99	89 - 110	
Selenium	2000	2000	100	85 - 112	

## Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-14533-2

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-64319

**Method: 6010B**  
**Preparation: 3005A**  
**Dissolved**

MS Lab Sample ID:	280-14533-1	Analysis Batch:	280-64501	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-64319	Lab File ID:	25A6042711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/28/2011 0247			Final Weight/Volume:	50 mL
Prep Date:	04/27/2011 1500				
Leach Date:	N/A				

MSD Lab Sample ID:	280-14533-1	Analysis Batch:	280-64501	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-64319	Lab File ID:	25A6042711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/28/2011 0249			Final Weight/Volume:	50 mL
Prep Date:	04/27/2011 1500				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Cadmium	102	103	82 - 119	1	25		
Arsenic	97	98	84 - 124	1	25		
Lead	98	100	89 - 121	2	25		
Selenium	101	102	71 - 140	1	25		

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-64319

**Method: 6010B**  
**Preparation: 3005A**  
**Dissolved**

MS Lab Sample ID:	280-14533-1	Units:	ug/L	MSD Lab Sample ID:	280-14533-1
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	04/28/2011 0247			Analysis Date:	04/28/2011 0249
Prep Date:	04/27/2011 1500			Prep Date:	04/27/2011 1500
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Cadmium	ND	100	100	102	103
Arsenic	ND	1000	1000	970	982
Lead	ND	500	500	489	498
Selenium	ND	2000	2000	2010	2040

## Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-14533-2

### Serial Dilution - Batch: 280-64319

**Method: 6010B**  
**Preparation: 3005A**  
**Dissolved**

Lab Sample ID: 280-14533-1

Client Matrix: Water

Dilution: 5.0

Analysis Date: 04/28/2011 0245

Prep Date: 04/27/2011 1500

Leach Date: N/A

Analysis Batch: 280-64501

Prep Batch: 280-64319

Leach Batch: N/A

Units: ug/L

Instrument ID: MT\_025

Lab File ID: 25A6042711.asc

Initial Weight/Volume: 50 mL

Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Cadmium	ND	ND	NC	10	
Arsenic	ND	ND	NC	10	
Lead	ND	ND	NC	10	
Selenium	ND	ND	NC	10	

## DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description
-------------	-----------	-------------

---

## Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-14533-2

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>Metals</b>					
<b>Prep Batch: 280-64319</b>					
LCS 280-64313/2-B	Lab Control Sample	D	Water	3005A	
MB 280-64313/1-B	Method Blank	D	Water	3005A	
280-14533-1	BURKHART-WW-2	D	Water	3005A	
280-14533-1MS	Matrix Spike	D	Water	3005A	
280-14533-1MSD	Matrix Spike Duplicate	D	Water	3005A	
<b>Analysis Batch:280-64501</b>					
LCS 280-64313/2-B	Lab Control Sample	D	Water	6010B	280-64319
MB 280-64313/1-B	Method Blank	D	Water	6010B	280-64319
280-14533-1	BURKHART-WW-2	D	Water	6010B	280-64319
280-14533-1MS	Matrix Spike	D	Water	6010B	280-64319
280-14533-1MSD	Matrix Spike Duplicate	D	Water	6010B	280-64319

#### Report Basis

D = Dissolved

## Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-14533-2

### Laboratory Chronicle

Lab ID: 280-14533-1

Client ID: BURKHART-WW-2

Sample Date/Time: 04/13/2011 09:40

Received Date/Time: 04/13/2011 13:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	280-14533-B-1-B		280-64501	280-64319	04/27/2011 15:00	1	TAL DEN	JM
A:6010B	280-14533-B-1-B		280-64501	280-64319	04/28/2011 02:42	1	TAL DEN	JKH

Lab ID: 280-14533-1 MS

Client ID: BURKHART-WW-2

Sample Date/Time: 04/13/2011 09:40

Received Date/Time: 04/13/2011 13:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	280-14533-B-1-C MS		280-64501	280-64319	04/27/2011 15:00	1	TAL DEN	JM
A:6010B	280-14533-B-1-C MS		280-64501	280-64319	04/28/2011 02:47	1	TAL DEN	JKH

Lab ID: 280-14533-1 MSD

Client ID: BURKHART-WW-2

Sample Date/Time: 04/13/2011 09:40

Received Date/Time: 04/13/2011 13:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	280-14533-B-1-D MSD		280-64501	280-64319	04/27/2011 15:00	1	TAL DEN	JM
A:6010B	280-14533-B-1-D MSD		280-64501	280-64319	04/28/2011 02:49	1	TAL DEN	JKH

Lab ID: 280-14533-1 SD

Client ID: BURKHART-WW-2

Sample Date/Time: 04/13/2011 09:40

Received Date/Time: 04/13/2011 13:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	280-14533-B-1-B SD ^5		280-64501	280-64319	04/27/2011 15:00	5	TAL DEN	JM
A:6010B	280-14533-B-1-B SD ^5		280-64501	280-64319	04/28/2011 02:45	5	TAL DEN	JKH

Lab ID: MB

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	MB 280-64313/1-B		280-64501	280-64319	04/27/2011 15:00	1	TAL DEN	JM
A:6010B	MB 280-64313/1-B		280-64501	280-64319	04/28/2011 02:38	1	TAL DEN	JKH

## Quality Control Results

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-14533-2

### Laboratory Chronicle

Lab ID: LCS

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	LCS 280-64313/2-B		280-64501	280-64319	04/27/2011 15:00	1	TAL DEN	JM
A:6010B	LCS 280-64313/2-B		280-64501	280-64319	04/28/2011 02:40	1	TAL DEN	JKH

#### Lab References:

TAL DEN = TestAmerica Denver

# Certification Summary

Client: Colorado Oil&Gas Conservation Commission  
Project/Site: Burkhart # 200300876

TestAmerica Job ID: 280-14533-2

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Denver		USDA		P330-08-00036
TestAmerica Denver	A2LA	DoD ELAP	0	2907.01
TestAmerica Denver	A2LA	ISO/IEC 17025	0	2907.01
TestAmerica Denver	Alabama	State Program	4	
TestAmerica Denver	Alaska	Alaska UST	10	UST-30
TestAmerica Denver	Arizona	State Program	9	AZ0713
TestAmerica Denver	Arkansas	State Program	6	88-0687
TestAmerica Denver	California	State Program	9	2513
TestAmerica Denver	Colorado	State Program	8	N/A
TestAmerica Denver	Connecticut	State Program	1	PH-0686
TestAmerica Denver	Florida	NELAC	4	E87667
TestAmerica Denver	Georgia	State Program	4	N/A
TestAmerica Denver	Idaho	State Program	10	CO00026
TestAmerica Denver	Illinois	NELAC	5	200017
TestAmerica Denver	Iowa	State Program	7	370
TestAmerica Denver	Kansas	NELAC	7	E-10166
TestAmerica Denver	Louisiana	NELAC	6	30785
TestAmerica Denver	Maine	State Program	1	CO0002
TestAmerica Denver	Maryland	State Program	3	268
TestAmerica Denver	Minnesota	NELAC	5	8-999-405
TestAmerica Denver	Nevada	State Program	9	CO0026
TestAmerica Denver	New Hampshire	NELAC	1	205310
TestAmerica Denver	New Jersey	NELAC	2	CO004
TestAmerica Denver	New Mexico	State Program	6	N/A
TestAmerica Denver	New York	NELAC	2	11964
TestAmerica Denver	North Carolina	North Carolina DENR	4	358
TestAmerica Denver	North Dakota	State Program	8	R-034
TestAmerica Denver	Oklahoma	State Program	6	8614
TestAmerica Denver	Oregon	NELAC	10	CO200001
TestAmerica Denver	Pennsylvania	NELAC	3	68-00664
TestAmerica Denver	South Carolina	State Program	4	72002
TestAmerica Denver	Tennessee	State Program	4	TN02944
TestAmerica Denver	Texas	NELAC	6	T104704183-08-TX
TestAmerica Denver	Utah	NELAC	8	QUAN5
TestAmerica Denver	Washington	State Program	10	C1284
TestAmerica Denver	West Virginia	West Virginia DEP	3	354
TestAmerica Denver	Wisconsin	State Program	5	999615430

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.



# Shipping and Receiving Documents



## Login Sample Receipt Checklist

Client: Colorado Oil&Gas Conservation Commision

Job Number: 280-14533-2

Login Number: 14533

List Source: TestAmerica Denver

List Number: 1

Creator: Lazarte, Noah M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	