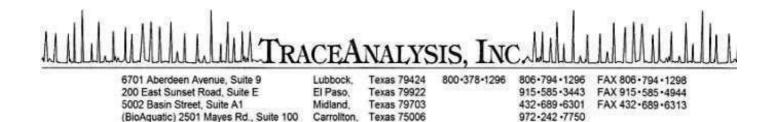
BW - \_\_\_004\_\_\_\_

# WATER QUALITY



## Certifications

E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Wayne Price Price LLC 312 Encantado Ridge Ct. NE Rio Rancho, NM, 87124

Project Location: Buckeye, NM-Tatum, NM

Project Name: Quarterly Samples

Project Number: Buckeye Station-Tatum Station

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	1 ime	Date
Sample	Description	Matrix	Taken	Taken	Received
368929	BS FW	water	2014-07-17	13:05	2014-07-17
368930	BS BW	water	2014-07-17	13:08	2014-07-17
368931	TS FW	water	2014-07-17	13:59	2014-07-17
368932	TS BW	water	2014-07-17	14:03	2014-07-17

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 19 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director James Taylor, Assistant Director

Report Date: July 31, 2014

14072110

Work Order:

# Report Contents

Case Narrative	3
Analytical Report         Sample 368929 (BS FW)         Sample 368930 (BS BW)         Sample 368931 (TS FW)         Sample 368932 (TS BW)	4 4 5 6 7
Method Blanks         QC Batch 113960 - Method Blank (1)         QC Batch 114016 - Method Blank (1)         QC Batch 114019 - Method Blank (1)         QC Batch 114047 - Method Blank (1)         QC Batch 114086 - Method Blank (1)	9 9 9 9 10
QC Batch 113880 - Duplicate (1)	11 11 11 11
QC Batch 113960 - LCS (1)	13 13 13 13
QC Batch 114016 - MS (1)	1 <b>5</b> 15 15
QC Batch 113880 - ICV (1) QC Batch 113880 - CCV (1) QC Batch 114016 - ICV (1) QC Batch 114016 - CCV (1) QC Batch 114086 - CCV (1) QC Batch 114086 - CCV (2)	16 16 16 16 16 17 17
Report Definitions	18 18 18

## Case Narrative

Samples for project Quarterly Samples were received by TraceAnalysis, Inc. on 2014-07-17 and assigned to work order 14072110. Samples for work order 14072110 were received intact at a temperature of 1.0 C.

Samples were analyzed for the following tests using their respective methods.

		Prep	Prep	QC	Analysis
Test	Method	Batch	Date	Batch	Date
Chloride (IC)	E 300.0	96480	2014-07-29 at 16:46	114086	2014-07-29 at 16:46
Density	ASTM D854-92	96429	2014-07-28 at 11:00	114019	2014-07-28 at $11:15$
Na, Dissolved	$S_{010C}$	96355	2014-07-24 at 13:18	114016	2014-07-25 at $15:56$
pН	SM 4500-H+	96321	2014-07-23 at 10:49	113880	2014-07-23 at $10:50$
TDS	SM 2540C	96388	2014-07-23 at 11:00	113960	2014-07-23 at $11:00$
TDS	SM 2540C	96452	2014-07-25 at 11:40	114047	2014-07-25 at $11:40$

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14072110 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: July 31, 2014 Work Order: 14072110 Page Number: 4 of 19 Buckeye Station-Tatum Station Quarterly Samples Buckeye, NM-Tatum, NM

## **Analytical Report**

Sample: 368929 - BS FW

Laboratory: El Paso

Prep Method: Analysis: Chloride (IC) Analytical Method: E 300.0 N/AQC Batch: 114086 Date Analyzed: 2014-07-29 Analyzed By: JRPrep Batch: 96480 Sample Preparation: 2014-07-29 Prepared By: JR

Sample: 368929 - BS FW

Laboratory: Lubbock

Analysis: Density Analytical Method: ASTM D854-92 Prep Method: N/A QC Batch: 114019 Date Analyzed: 2014-07-28 Analyzed By: CF Prep Batch: 96429 Sample Preparation: 2014-07-28 Prepared By: CF

Sample: 368929 - BS FW

Laboratory: Lubbock

Analytical Method: Prep Method: Analysis: Hq SM 4500-H+N/A QC Batch: 113880 Date Analyzed: 2014 - 07 - 23Analyzed By: ATPrep Batch: 96321 Sample Preparation: 2014-07-23 Prepared By: AT

Sample: 368929 - BS FW

Laboratory: Lubbock

Analysis: TDS Analytical Method: SM 2540C Prep Method: N/AQC Batch: 114047 Analyzed By: CF Date Analyzed: 2014-07-25 Prep Batch: Sample Preparation: Prepared By: 964522014-07-25 CF

Report Date: July 31, 2014 Buckeye Station-Tatum Station Work Order: 14072110 Quarterly Samples Page Number: 5 of 19 Buckeye, NM-Tatum, NM

Prep Method:

Analyzed By:

Prepared By:

Prep Method:

Analyzed By:

N/A

JR

JR

N/A

CF

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Total Dissolved Solids	Qr	2,3,5,7,8	864	m mg/L	20	2.50

Sample: 368930 - BS BW

Laboratory: El Paso

Parameter

Parameter

Density

Chloride

Analysis: Chloride (IC) QC Batch: 114086 Prep Batch: 96480 Analytical Method: E 300.0 Date Analyzed: 2014-07-29 Sample Preparation: 2014-07-29

 RL
 Result
 Units
 Dilution
 RL

 200000
 mg/L
 5000
 2.50

Sample: 368930 - BS BW

Laboratory: Lubbock

Analysis: Density
QC Batch: 114019
Prep Batch: 96429

Analytical Method: ASTM D854-92 Date Analyzed: 2014-07-28 Sample Preparation: 2014-07-28

RL

Result

1.20

 $\operatorname{Cert}$ 

1,4,6

Cert

Flag

Flag

Sample: 368930 - BS BW

Laboratory: Lubbock

Analysis: Na, Dissolved QC Batch: 114016 Prep Batch: 96355 Analytical Method: S 6010C Date Analyzed: 2014-07-25 Sample Preparation: 2014-07-24 Prep Method: S 3005A Analyzed By: LM Prepared By: LM

Buckeye Station-Tatum Station Quarterly Samples Buckeye, NM-Tatum, NM Sample: 368930 - BS BW Laboratory: Lubbock Analysis: На Analytical Method: SM 4500-H+Prep Method: N/A QC Batch: 113880 Date Analyzed: 2014-07-23 Analyzed By: ATPrep Batch: 96321 Sample Preparation: 2014-07-23 Prepared By: ATRLParameter Flag Cert Result Units Dilution RL $\overline{pH}$ 6.90 2.00 s.u. 2,3,7,8 Sample: 368930 - BS BW Laboratory: Lubbock Analysis: TDS Analytical Method: SM 2540C Prep Method: N/AQC Batch: 113960 Date Analyzed: 2014-07-23 Analyzed By: CF Prep Batch: 96388 Sample Preparation: 2014-07-23 Prepared By: CFRLFlag Units Dilution RLParameter Cert Result 295000 Total Dissolved Solids 2,3,5,7,8 mg/L2000 2.50 Sample: 368931 - TS FW Laboratory: El Paso Prep Method: Analysis: Chloride (IC) Analytical Method: E 300.0 N/AQC Batch: 114086 Analyzed By: JRDate Analyzed: 2014-07-29 Prep Batch: 96480 Sample Preparation: 2014-07-29 Prepared By: JRRLCert Units Dilution RLParameter Flag Result

Work Order: 14072110

Sample: 368931 - TS FW

Report Date: July 31, 2014

Laboratory: Lubbock

Chloride

Analysis: Density Analytical Method: ASTM D854-92 Prep Method: N/A QC Batch: 114019 Date Analyzed: 2014-07-28 Analyzed By: CF Prep Batch: 96429 Sample Preparation: 2014-07-28 Prepared By: CF

1,4,6

76.8

 $continued \dots$ 

10

2.50

 $\overline{\mathrm{mg/L}}$ 

Page Number: 6 of 19

-	: July 31, 2014 tion-Tatum Statio	n		Work Orde Quarterl	Page Number: 7 Buckeye, NM-Tatum			
sample 36893	31 continued							
Parameter		Flag	C	Cert	RL Result	Units	Dilution	RL
Parameter		Flag	C	ert	RL Result	Units	Dilution	RL
Density					0.994	g/ml	1	0.00
Sample: 36	8931 - TS FW							
Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock pH 113880 96321		Date	tical Method: Analyzed: e Preparation	2014-07-23		Prep Method: Analyzed By: Prepared By:	N/A AT AT
Parameter		Flag	C	ert	RL Result	Units	Dilution	RL
рН				3,7,8	9.30	s.u.	1	2.00
Sample: 36	8931 - TS FW							
Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock TDS 113960 96388		Date	ytical Method Analyzed: ble Preparatio	2014-07-23		Prep Method: Analyzed By: Prepared By:	N/A CF CF
Parameter			Flag	Cert	RL Result	Units	Dilution	RL
Total Dissolv	ed Solids			2,3,5,7,8	639	mg/L	10	2.50
Sample: 36 Laboratory: Analysis: QC Batch:	8932 - TS BW  El Paso Chloride (IC) 114086			nalytical Methate Analyzed:	nod: E 300.0 2014-07-2	9	Prep Method: Analyzed By:	N/A JR

Sample Preparation: 2014-07-29

 $\operatorname{Cert}$ 

1,4,6

RL

Units

mg/L

Result

17900

Prepared By:

Dilution

500

JR

RL

2.50

Prep Batch: 96480

 $\operatorname{Flag}$ 

Parameter

 $\overline{\text{Chloride}}$ 

Sample: 368932 - TS BW Laboratory: Lubbock Analysis: Density Analytical Method: ASTM D854-92 Prep Method: N/AQC Batch: 114019 Date Analyzed: 2014-07-28 Analyzed By: CF Prep Batch: 96429 Sample Preparation: 2014-07-28 Prepared By: CF RLParameter Cert Result Units Dilution Flag RLDensity 1.02 0.00 g/ml Sample: 368932 - TS BW Lubbock Laboratory: Analysis: Na, Dissolved Analytical Method: S 6010C Prep Method: S 3005A QC Batch: 114016 Date Analyzed: 2014-07-25 Analyzed By: LMPrep Batch: 96355 Sample Preparation: 2014-07-24 Prepared By: LMRLFlag Result Units Dilution RLParameter Cert Dissolved Sodium 3,5,7,8 11300mg/L100 1.00 Sample: 368932 - TS BWLaboratory: Lubbock Analysis: Analytical Method: SM 4500-H+ Prep Method: N/AрН QC Batch: 113880 Date Analyzed: 2014-07-23 Analyzed By: ATPrep Batch: 96321 Sample Preparation: 2014 - 07 - 23Prepared By: AT RLParameter Cert Result Units Dilution RLFlag 6.21 2.00 pН s.u. 2,3,7,8 1 Sample: 368932 - TS BWLubbock Laboratory: TDS Analytical Method: Prep Method: N/AAnalysis: SM 2540C QC Batch: 113960 Date Analyzed: 2014-07-23 Analyzed By: CF Prep Batch: 96388 Sample Preparation: 2014-07-23 Prepared By: CFRLParameter Units Dilution Flag Cert Result RL

34600

mg/L

2,3,5,7,8

Work Order: 14072110

Quarterly Samples

Page Number: 8 of 19

Buckeye, NM-Tatum, NM

1000

2.50

Report Date: July 31, 2014

Total Dissolved Solids

Buckeye Station-Tatum Station

Report Date: July 31, 2014 Buckeye Station-Tatum Station Work Order: 14072110 Quarterly Samples Page Number: 9 of 19 Buckeye, NM-Tatum, NM

Analyzed By: CF

## Method Blanks

Method Blank (1) QC Batch: 113960

QC Batch: 113960 Date Analyzed: 2014-07-23

Prep Batch: 96388 QC Preparation: 2014-07-23 Prepared By: CF

Method Blank (1) QC Batch: 114016

QC Batch: 114016 Date Analyzed: 2014-07-25 Analyzed By: LM Prep Batch: 96355 QC Preparation: 2014-07-24 Prepared By: PM

Method Blank (1) QC Batch: 114019

QC Batch: 114019 Date Analyzed: 2014-07-28 Analyzed By: CF Prep Batch: 96429 QC Preparation: 2014-07-28 Prepared By: CF

Method Blank (1) QC Batch: 114047

QC Batch: 114047 Date Analyzed: 2014-07-25 Analyzed By: CF Prep Batch: 96452 QC Preparation: 2014-07-25 Prepared By: CF Report Date: July 31, 2014 Buckeye Station-Tatum Station Work Order: 14072110 Quarterly Samples Page Number: 10 of 19 Buckeye, NM-Tatum, NM

Analyzed By: JR

JR

Prepared By:

			MDL		
Parameter	Flag	$\operatorname{Cert}$	Result	Units	RL
Total Dissolved Solids		2,3,5,7,8	< 2.50	m mg/L	2.5

Method Blank (1) QC Batch: 114086

 QC Batch:
 114086
 Date Analyzed:
 2014-07-29

 Prep Batch:
 96480
 QC Preparation:
 2014-07-29

 $\mathrm{MDL}$ 

Report Date: July 31, 2014 Work Order: 14072110 Page Number: 11 of 19 Buckeye Station-Tatum Station Quarterly Samples Buckeye, NM-Tatum, NM

# **Duplicates**

**Duplicates (1)** Duplicated Sample: 368940

QC Batch: 113880 Date Analyzed: 2014-07-23 Analyzed By: AT Prep Batch: 96321 QC Preparation: 2014-07-23 Prepared By: AT

RPD Duplicate Sample RPD Result Result Limit Param Units Dilution 8.20  $\overline{pH}$ 8.16 s.u. 0 20 2,3,7,8

**Duplicates (1)** Duplicated Sample: 369075

QC Batch: 113960 Date Analyzed: 2014-07-23 Analyzed By: CF Prep Batch: 96388 QC Preparation: 2014-07-23 Prepared By: CF

Duplicate Sample RPD RPD Dilution Limit Param Result Result Units Total Dissolved Solids 381 380 mg/L10 0 10 2,3,5,7,8

**Duplicates (1)** Duplicated Sample: 368932

QC Batch: 114019 Date Analyzed: 2014-07-28 Analyzed By: CF Prep Batch: 96429 QC Preparation: 2014-07-28 Prepared By: CF

RPD Duplicate Sample Param Result Result Units Dilution RPD Limit Density 1.02 1.02 g/ml 1 0 20

**Duplicates (1)** Duplicated Sample: 369374

QC Batch: 114047 Date Analyzed: 2014-07-25 Analyzed By: CF Prep Batch: 96452 QC Preparation: 2014-07-25 Prepared By: CF

Report Date: July 31, 2014 Buckeye Station-Tatum Station Work Order: 14072110 Quarterly Samples Page Number: 12 of 19 Buckeye, NM-Tatum, NM

				Duplicate	Sample				RPD
Param				Result	Result	Units	Dilution	RPD	Limit
Total Dissolved Solids	Qr	Qr	2,3,5,7,8	2660	2300	$\mathrm{mg/L}$	50	14	10

Report Date: July 31, 2014 Work Order: 14072110 Page Number: 13 of 19 Buckeye Station-Tatum Station Quarterly Samples Buckeye, NM-Tatum, NM

# Laboratory Control Spikes

#### Laboratory Control Spike (LCS-1)

 QC Batch:
 113960
 Date Analyzed:
 2014-07-23

 Prep Batch:
 96388
 QC Preparation:
 2014-07-23

LCS Spike Matrix Rec.  $\mathbf{C}$ Result Amount Result Param Units Dil. Rec. Limit Total Dissolved Solids 1000 mg/L1000 < 2.50100 90 - 110 2,3,5,7,8

Analyzed By: CF

CF

Prepared By:

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Total Dissolved Solids		2,3,5,7,8	1040	mg/L	1	1000	< 2.50	104	90 - 110	4	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 114016 Date Analyzed: 2014-07-25 Analyzed By: LM Prep Batch: 96355 QC Preparation: 2014-07-24 Prepared By: PM

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit Dissolved Sodium 49.5 52.5 < 0.0184 94 mg/L85 - 115 3,5,7,8

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			$_{\mathrm{Spike}}$	Matrix		Rec.		RPD
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Sodium		3,5,7,8	50.2	mg/L	1	52.5	< 0.0184	96	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 114047 Date Analyzed: 2014-07-25 Analyzed By: CF Prep Batch: 96452 QC Preparation: 2014-07-25 Prepared By: CF Report Date: July 31, 2014 Buckeye Station-Tatum Station Work Order: 14072110 Quarterly Samples Page Number: 14 of 19 Buckeye, NM-Tatum, NM

			LCS			Spike	Matrix		Rec.
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
Total Dissolved Solids		2,3,5,7,8	972	mg/L	1	1000	< 2.50	97	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Total Dissolved Solids		2,3,5,7,8	1020	mg/L	1	1000	< 2.50	102	90 - 110	5	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 114086 Date Analyzed: 2014-07-29 Analyzed By: JR Prep Batch: 96480 QC Preparation: 2014-07-29 Prepared By: JR

			LCS			$\operatorname{Spike}$	Matrix		Rec.
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$
Chloride		1,4,6	25.2	mg/L	1	25.0	< 0.00680	101	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride		1,4,6	25.1	mg/L	1	25.0	< 0.00680	100	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: July 31, 2014 Work Order: 14072110 Page Number: 15 of 19 Buckeye Station-Tatum Station Quarterly Samples Buckeye, NM-Tatum, NM

# Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 368864

QC Batch: 114016 Date Analyzed: 2014-07-25 Analyzed By: LM Prep Batch: 96355 QC Preparation: 2014-07-24 Prepared By: PM

			MS			$\operatorname{Spike}$	Matrix		Rec.
Param	F	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
Dissolved Sodium		3,5,7,8	4530	mg/L	10	525	4100	82	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Sodium		3,5,7,8	4540	mg/L	10	525	4100	84	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 368931

QC Batch: 114086 Date Analyzed: 2014-07-29 Analyzed By: JR Prep Batch: 96480 QC Preparation: 2014-07-29 Prepared By: JR

			MS			Spike	Matrix		Rec.
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$
Chloride		1,4,6	1480	mg/L	55.6	1390	76.8	101	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride		1,4,6	1480	mg/L	55.6	1390	76.8	101	80 - 120	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: July 31, 2014 Work Order: 14072110 Page Number: 16 of 19 Buckeye Station-Tatum Station Quarterly Samples Buckeye, NM-Tatum, NM

# Calibration Standards

#### Standard (ICV-1)

QC Batch: 113880 Date Analyzed: 2014-07-23 Analyzed By: AT

				ICVs	ICVs	ICVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
pН		2,3,7,8	s.u.	7.00	7.01	100	98 - 102	2014-07-23

#### Standard (CCV-1)

QC Batch: 113880 Date Analyzed: 2014-07-23 Analyzed By: AT

				CCVs	$\mathrm{CCVs}$	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	$\operatorname{Cert}$	Units	Conc.	Conc.	Recovery	Limits	Analyzed
ъH		2378	S.11.	7.00	7.01	100	98 - 102	2014-07-23

#### Standard (ICV-1)

QC Batch: 114016 Date Analyzed: 2014-07-25 Analyzed By: LM

				ICVs	ICVs	ICVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Sodium		3,5,7,8	mg/L	51.0	48.8	96	90 - 110	2014-07-25

#### Standard (CCV-1)

QC Batch: 114016 Date Analyzed: 2014-07-25 Analyzed By: LM

				$\mathrm{CCVs}$	$\mathrm{CCVs}$	$\mathrm{CCVs}$	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Sodium		3,5,7,8	mg/L	51.0	49.9	98	90 - 110	2014-07-25

Report Date: July 31, 2014 Work Order: 14072110 Page Number: 17 of 19 Buckeye Station-Tatum Station Quarterly Samples Buckeye, NM-Tatum, NM

Standard (CCV-1)

QC Batch: 114086 Date Analyzed: 2014-07-29 Analyzed By: JR

				CCVs	$\mathrm{CCVs}$	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		1,4,6	mg/L	25.0	24.8	99	90 - 110	2014-07-29

Standard (CCV-2)

QC Batch: 114086 Date Analyzed: 2014-07-29 Analyzed By: JR

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		1,4,6	mg/L	25.0	25.0	100	90 - 110	2014-07-29

Standard (CCV-3)

QC Batch: 114086 Date Analyzed: 2014-07-29 Analyzed By: JR

				$\mathrm{CCVs}$	$\mathrm{CCVs}$	$\mathrm{CCVs}$	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		1,4,6	mg/L	25.0	25.2	101	90 - 110	2014-07-29

Report Date: July 31, 2014 Work Order: 14072110 Page Number: 18 of 19 Buckeye Station-Tatum Station Quarterly Samples Buckeye, NM-Tatum, NM

# **Appendix**

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## **Laboratory Certifications**

	Certifying	Certification	Laboratory
$\mathbf{C}$	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	PJLA	L14-103	El Paso
2	PJLA	L14-93	Lubbock
3	Kansas	Kansas E-10317	Lubbock
4	LELAP	LELAP-02002	El Paso
5	LELAP	LELAP-02003	Lubbock
6	NELAP	T104704221-12-3	El Paso
7	NELAP	T104704219-14-10	Lubbock
8		2013-083	Lubbock

## Standard Flags

- F Description
- B Analyte detected in the corresponding method blank above the method detection limit
- H Analyzed out of hold time
- J Estimated concentration
- Jb The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
- Je Estimated concentration exceeding calibration range.
- MI1 Split peak or shoulder peak
- MI2 Instrument software did not integrate
- MI3 Instrument software misidentified the peak
- MI4 Instrument software integrated improperly
- MI5 Baseline correction
- Qc Calibration check outside of laboratory limits.

Report Date: July 31, 2014 Work Order: 14072110 Page Number: 19 of 19 Buckeye Station-Tatum Station Quarterly Samples Buckeye, NM-Tatum, NM

- F Description
- Qr RPD outside of laboratory limits
- Qs Spike recovery outside of laboratory limits.
- Qsr Surrogate recovery outside of laboratory limits.
  - U The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.

LAB Order ID #

TraceAnalysis, Inc.

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1 (888) 588-3443

BioAquatic Testing 2501 Mayes Rd., Ste 100 **Carrollton, Texas 75006** Tel (972) 242-7750

ANALYSIS REQUEST	ircle or Specify Method N	<b>DEZ</b> Kalinib	H = 2 C	NHC	8   0   0   0   0   0   0   0   0   0	O / DF 25 26 26 As Bs O 260 V 60 260 V 60 27 Vol. 82 260 V 60 27 Vol. 82 27 Vol. 82 28 Vol. 82 20 Vol.	TPH 8015 GR PAH 8270 / 62 Total Metals Ag A TCLP Metals Ag A TCLP Volatiles TCLP Semi Vol CC/MS Semi GC/MS Semi GC/MS Semi GC/MS Semi GC/MS Semi GC/MS Semi GC/MS Contigues 808 TCLP Pesticides 808 GC/MS Contigues 808 Total Tas, ph Moisture 808 Total Tas, ph Mois	×	× × ×		×	××××××××××××××××××××××××××××××××××××××			LAB USE REMARKS:	ONLY	c Headspace Y/N/NA	Dry Weight Basis Required TRRP Report Required
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Company Name:	Address: (Street, 310 ENCENDED	Contact Person:	Invoice to: (If different from a	Project #: B	Project Location (		(LAB USE)	3692 6		3	1 937	932			Relinquished by:	LWPOR	Relinquished by:	Relinquished by:

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Carrier #

Report Date: July 31, 2014 Work Order: 14072110 Page Number: 1 of 2

# **Summary Report**

Wayne Price Price LLC 312 Encantado Ridge Ct. 1

312 Encantado Ridge Ct. NE Rio Rancho, NM 87124

Report Date: July 31, 2014

Work Order: 14072110

Project Location: Buckeye, NM-Tatum, NM Project Name: Quarterly Samples

Project Number: Buckeye Station-Tatum Station

			Date	$\operatorname{Time}$	Date
Sample	Description	Matrix	Taken	Taken	Received
368929	BS FW	water	2014-07-17	13:05	2014-07-17
368930	BS BW	water	2014-07-17	13:08	2014-07-17
368931	TS FW	water	2014-07-17	13:59	2014-07-17
368932	TS BW	water	2014-07-17	14:03	2014-07-17

#### Sample: 368929 - BS FW

Param	Flag	Result	Units	RL
Chloride		341	m mg/L	2.5
Density		0.995	$\mathrm{g/ml}$	
pH		7.62	s.u.	2
Total Dissolved Solids	$_{ m Qr}$	864	$\mathrm{mg/L}$	2.5

#### Sample: 368930 - BS BW

Param	Flag	Result	Units	RL
Chloride		200000	$\mathrm{mg/L}$	2.5
Density		1.20	m g/ml	
Dissolved Sodium		149000	$\mathrm{mg/L}$	1
pH		$\boldsymbol{6.90}$	s.u.	2
Total Dissolved Solids		295000	$\mathrm{mg/L}$	2.5

Sample: 368931 - TS FW

Param	Flag	Result	Units	$\operatorname{RL}$
Chloride	0	76.8	m mg/L	2.5
Density		0.994	g/ml	
pH		9.30	s.u.	2
Total Dissolved Solids		639	m mg/L	2.5

#### Sample: 368932 - TS BW

Param	Flag	Result	Units	RL
Chloride		17900	$\mathrm{mg/L}$	2.5
Density		1.02	m g/ml	
Dissolved Sodium		11300	m mg/L	1
рН		$\boldsymbol{6.21}$	s.u.	2
Total Dissolved Solids		34600	m mg/L	2.5

Report Date: July 31, 2014 Work Order: 14072110 Page Number: 1 of 2

# **Summary Report**

Wayne Price Price LLC 312 Encantado Ridge Ct. 1

312 Encantado Ridge Ct. NE Rio Rancho, NM 87124

Report Date: July 31, 2014

Work Order: 14072110

Project Location: Buckeye, NM-Tatum, NM Project Name: Quarterly Samples

Project Number: Buckeye Station-Tatum Station

			Date	$\operatorname{Time}$	Date
Sample	Description	Matrix	Taken	Taken	Received
368929	BS FW	water	2014-07-17	13:05	2014-07-17
368930	BS BW	water	2014-07-17	13:08	2014-07-17
368931	TS FW	water	2014-07-17	13:59	2014-07-17
368932	TS BW	water	2014-07-17	14:03	2014-07-17

#### Sample: 368929 - BS FW

Param	Flag	Result	Units	RL
Chloride		341	m mg/L	2.5
Density		0.995	$\mathrm{g/ml}$	
pH		7.62	s.u.	2
Total Dissolved Solids	$_{ m Qr}$	864	$\mathrm{mg/L}$	2.5

#### Sample: 368930 - BS BW

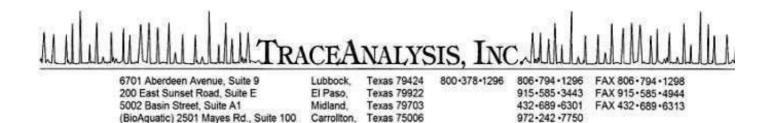
Param	Flag	Result	Units	RL
Chloride		200000	$\mathrm{mg/L}$	2.5
Density		1.20	m g/ml	
Dissolved Sodium		149000	$\mathrm{mg/L}$	1
pH		$\boldsymbol{6.90}$	s.u.	2
Total Dissolved Solids		295000	$\mathrm{mg/L}$	2.5

Sample: 368931 - TS FW

Param	Flag	Result	Units	$\operatorname{RL}$
Chloride	0	76.8	m mg/L	2.5
Density		0.994	g/ml	
pH		9.30	s.u.	2
Total Dissolved Solids		639	m mg/L	2.5

#### Sample: 368932 - TS BW

Param	Flag	Result	Units	RL
Chloride		17900	$\mathrm{mg/L}$	2.5
Density		1.02	m g/ml	
Dissolved Sodium		11300	m mg/L	1
рН		$\boldsymbol{6.21}$	s.u.	2
Total Dissolved Solids		34600	m mg/L	2.5



#### Certifications

E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

# Analytical and Quality Control Report

Lester Waynce Price Jr. Price LLC 312 Encantado Ridge Ct. NE Rio Rancho, NM, 87124

Project Location: Buckeye, NM Project Name: Brine Well

Project Number: Brine Well-Buckeye

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	$_{ m 1ime}$	Date
Sample	Description	Matrix	Taken	Taken	Received
385130	Fresh	water	2015-01-16	15:51	2015-01-21
385131	Brine	water	2015-01-16	14:10	2015-01-21

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 16 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director James Taylor, Assistant Director Brian Pellam, Operations Manager

Report Date: February 17, 2015

15012306

Work Order:

# **Report Contents**

Case Narrative	3
Analytical Report           Sample 385130 (Fresh )	<b>4</b> 4
Method Blanks         QC Batch 118885 - Method Blank (1)         QC Batch 118905 - Method Blank (1)         QC Batch 119127 - Method Blank (1)         QC Batch 119410 - Method Blank (1)	7 7 7 7
QC Batch 118893 - Duplicate (1)	9
Matrix Spikes       1         QC Batch 119127 - xMS (1)	
QC Batch 118893 - ICV (1) QC Batch 118893 - CCV (1) QC Batch 119127 - ICV (1) QC Batch 119127 - CCV (1) QC Batch 119410 - CCV (1)	13 13 13 13 13 14
Appendix Report Definitions Laboratory Certifications Standard Flags Attachments	15 15

## Case Narrative

Samples for project Brine Well were received by TraceAnalysis, Inc. on 2015-01-21 and assigned to work order 15012306. Samples for work order 15012306 were received intact at a temperature of 0.3 C.

Samples were analyzed for the following tests using their respective methods.

		Prep	$\operatorname{Prep}$	QC	Analysis
Test	Method	Batch	Date	Batch	Date
Chloride (IC)	E 300.0	100982	2015-02-16 at 12:00	119410	2015-02-16 at 12:53
Na, Dissolved	$S_{010C}$	100546	2015-01-27 at 17:40	119127	2015-02-06 at $09:23$
pН	SM 4500-H+	100544	2015-01-27 at $04:00$	118893	2015-01-27 at $16:44$
Specific Gravity	ASTM D1429-95	100533	2015-01-27 at 13:00	118885	2015-01-27 at $13:10$
TDS	SM 2540C	100553	2015-01-26 at 09:00	118905	2015-01-26 at $17:00$

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 15012306 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: February 17, 2015 Work Order: 15012306 Page Number: 4 of 16 Brine Well-Buckeye Brine Well Buckeye, NM

## **Analytical Report**

Sample: 385130 - Fresh

Laboratory: Lubbock

Prep Method: Analysis: Chloride (IC) Analytical Method: E 300.0 N/AQC Batch: 119410 Date Analyzed: 2015-02-16 Analyzed By: RLPrep Batch: 100982 Sample Preparation: Prepared By: RL

Sample: 385130 - Fresh

Laboratory: Lubbock

 $S_{6010C}$ Analysis: Na, Dissolved Analytical Method: Prep Method: S 3005A QC Batch: 119127 Date Analyzed: 2015-02-06 Analyzed By: RRPrep Batch: 100546 Sample Preparation: 2015-01-27 Prepared By: RR

Sample: 385130 - Fresh

Laboratory: Lubbock

Analytical Method: Prep Method: N/A Analysis: На SM 4500-H+QC Batch: 118893 Date Analyzed: 2015-01-27 Analyzed By: ATPrep Batch: 100544 Sample Preparation: 2015-01-27 Prepared By: AT

Sample: 385130 - Fresh

Laboratory: Lubbock

Analysis: Specific Gravity Analytical Method: ASTM D1429-95 Prep Method: N/AQC Batch: Analyzed By: CF 118885 Date Analyzed: 2015-01-27 Prep Batch: 100533 Sample Preparation: Prepared By: 2015-01-27 CF

Report Date: February 17, 2015

Brine Well-Buckeye Brine Well

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL

Work Order: 15012306

0.9918

g/ml

Page Number: 5 of 16

Buckeye, NM

0.000

#### Sample: 385130 - Fresh

Laboratory: Lubbock

Specific Gravity

Analysis: TDS Analytical Method: SM 2540C Prep Method: N/AQC Batch: 118905 Date Analyzed: 2015-01-26 Analyzed By: RLPrep Batch: 100553 Sample Preparation: Prepared By: RL

#### **Sample: 385131 - Brine**

Laboratory: Lubbock

Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A QC Batch: 119410 Date Analyzed: 2015-02-16 Analyzed By: RL Prep Batch: 100982 Sample Preparation: Prepared By: RL

#### Sample: 385131 - Brine

Laboratory: Lubbock

Na, Dissolved Analytical Method: S 6010C Prep Method: S 3005A Analysis: QC Batch: 119127 Date Analyzed: 2015-02-06 Analyzed By: RRPrep Batch: 100546 Sample Preparation: 2015-01-27 Prepared By: RR

Sample: 385131 - Brine Laboratory: Lubbock Analytical Method: Analysis: рН SM 4500-H+Prep Method: N/AQC Batch: 118893 Date Analyzed: 2015-01-27 Analyzed By: ATSample Preparation: Prep Batch: 100544 2015-01-27 Prepared By: ATRLParameter  $\operatorname{Flag}$ Cert Result Units Dilution RL $\overline{pH}$ 7.122.00 s.u. 1,2,4,5 Sample: 385131 - Brine Laboratory: Lubbock Analysis: Specific Gravity Analytical Method: ASTM D1429-95 Prep Method: N/AQC Batch: 118885 $\operatorname{CF}$ Date Analyzed: 2015-01-27 Analyzed By: Prep Batch: 100533 Sample Preparation: 2015-01-27 Prepared By: CFRLParameter Flag Cert Result Units Dilution RL0.000 Specific Gravity 1.124g/ml 1 Sample: 385131 - Brine Laboratory: Lubbock Analysis: TDS Analytical Method: SM 2540C Prep Method: N/AQC Batch: 118905 Date Analyzed: 2015-01-26 Analyzed By: RLPrep Batch: 100553 Sample Preparation: Prepared By: RLRL

 $\operatorname{Cert}$ 

1,2,3,4,5

Result

186000

Units

mg/L

Dilution

2000

RL

2.50

Flag

Work Order: 15012306

Brine Well

Page Number: 6 of 16

Buckeye, NM

Report Date: February 17, 2015

Brine Well-Buckeye

Parameter

Total Dissolved Solids

Report Date: February 17, 2015 Work Order: 15012306 Page Number: 7 of 16 Brine Well-Buckeye Brine Well Buckeye, NM

## Method Blanks

Method Blank (1) QC Batch: 118885

QC Batch: 118885 Date Analyzed: 2015-01-27 Analyzed By: CF Prep Batch: 100533 QC Preparation: 2015-01-27 Prepared By: CF

Method Blank (1) QC Batch: 118905

QC Batch: 118905 Date Analyzed: 2015-01-26 Analyzed By: RL Prep Batch: 100553 QC Preparation: 2015-01-26 Prepared By: RL

Method Blank (1) QC Batch: 119127

QC Batch: 119127 Date Analyzed: 2015-02-06 Analyzed By: RR
Prep Batch: 100546 QC Preparation: 2015-01-27 Prepared By: PM

Method Blank (1) QC Batch: 119410

QC Batch: 119410 Date Analyzed: 2015-02-16 Analyzed By: RL Prep Batch: 100982 QC Preparation: 2015-02-16 Prepared By: RL

Report Date: February 17, 2015 Brine Well-Buckeye Work Order: 15012306 Brine Well Page Number: 8 of 16

 $Buckeye,\,NM$ 

Report Date: February 17, 2015 Work Order: 15012306 Page Number: 9 of 16 Brine Well-Buckeye Brine Well Buckeye, NM

# **Duplicates**

**Duplicates (1)** Duplicated Sample: 385269

QC Batch: 118885 Date Analyzed: 2015-01-27 Analyzed By: CF Prep Batch: 100533 QC Preparation: 2015-01-27 Prepared By: CF

RPD Duplicate Sample RPD Result Result Dilution Param Units Limit Specific Gravity 1.074 1.072 g/ml 0 200

**Duplicates (1)** Duplicated Sample: 385269

QC Batch: 118893 Date Analyzed: 2015-01-27 Analyzed By: AT Prep Batch: 100544 QC Preparation: 2015-01-27 Prepared By: AT

RPDDuplicate Sample RPD  ${\bf Limit}$ Param Result Result Dilution Units  $\overline{pH}$ 6.79 6.78 s.u. 1 0 20 1,2,4,5

**Duplicates (1)** Duplicated Sample: 385130

QC Batch: 118905 Date Analyzed: 2015-01-26 Analyzed By: RL Prep Batch: 100553 QC Preparation: 2015-01-26 Prepared By: RL

RPDDuplicate Sample Param Result Result Units Dilution RPD Limit Total Dissolved Solids 850 806 mg/L20 5 10 1,2,3,4,5

Report Date: February 17, 2015 Work Order: 15012306 Page Number: 10 of 16 Brine Well-Buckeye Brine Well Buckeye, NM

# Laboratory Control Spikes

#### Laboratory Control Spike (LCS-1)

QC Batch: 118905 Date Analyzed: 2015-01-26 Analyzed By: RL Prep Batch: 100553 QC Preparation: 2015-01-26 Prepared By: RL

			LCS			Spike	Matrix		Rec.
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$
Total Dissolved Solids		1,2,3,4,5	988	mg/L	10	1000	<25.0	99	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Total Dissolved Solids		1,2,3,4,5	978	mg/L	10	1000	<25.0	98	90 - 110	1	10

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 119127 Date Analyzed: 2015-02-06 Analyzed By: RR Prep Batch: 100546 QC Preparation: 2015-01-27 Prepared By: PM

			LCS			Spike	Matrix		Rec.
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
Dissolved Sodium		2,3,4,5	56.0	mg/L	1	52.5	< 0.0184	107	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Sodium		2,3,4,5	57.2	mg/L	1	52.5	< 0.0184	109	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

#### Laboratory Control Spike (LCS-1)

QC Batch: 119410 Date Analyzed: 2015-02-16 Analyzed By: RL
Prep Batch: 100982 QC Preparation: 2015-02-16 Prepared By: RL

Report Date: February 17, 2015 Brine Well-Buckeye Work Order: 15012306 Brine Well Page Number: 11 of 16

Buckeye, NM

			LCS			Spike	Matrix		Rec.
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
Chloride		1,2,3,4,5	24.0	mg/L	1	25.0	0.767	93	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			$_{\rm Spike}$	Matrix		Rec.		RPD
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride		1,2,3,4,5	23.5	mg/L	1	25.0	0.767	91	90 - 110	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: February 17, 2015 Work Order: 15012306 Page Number: 12 of 16 Brine Well-Buckeye Brine Well Buckeye, NM

# Matrix Spikes

Matrix Spike (xMS-1) Spiked Sample: 385041

QC Batch: 119127 Date Analyzed: 2015-02-06 Analyzed By: RR
Prep Batch: 100546 QC Preparation: 2015-01-27 Prepared By: PM

			MS			$\operatorname{Spike}$	Matrix		Rec.
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$
Dissolved Sodium		2,3,4,5	1660	mg/L	1	525	1210	86	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

				MSD			Spike	Matrix		Rec.		RPD
Param		$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Sodium	Qs	Qs	2,3,4,5	1580	mg/L	1	525	1210	70	75 - 125	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 386889

QC Batch: 119410 Date Analyzed: 2015-02-16 Analyzed By: RL Prep Batch: 100982 QC Preparation: 2015-02-16 Prepared By: RL

			MS			Spike	Matrix		Rec.
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	$\operatorname{Limit}$
Chloride		1,2,3,4,5	3350	mg/L	100	2500	812	102	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	$\mathbf{F}$	$\mathbf{C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride		1,2,3,4,5	3290	mg/L	100	2500	812	99	80 - 120	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: February 17, 2015 Work Order: 15012306 Page Number: 13 of 16 Brine Well-Buckeye Brine Well Buckeye, NM

# Calibration Standards

#### Standard (ICV-1)

QC Batch: 118893 Date Analyzed: 2015-01-27 Analyzed By: AT

				ICVs	ICVs	ICVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
На		1.2.4.5	s.u.	7.00	7.01	100	98.6 - 101.4	2015-01-27

#### Standard (CCV-1)

QC Batch: 118893 Date Analyzed: 2015-01-27 Analyzed By: AT

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
pН		1,2,4,5	s.u.	7.00	7.01	100	98.6 - 101.4	2015-01-27

#### Standard (ICV-1)

QC Batch: 119127 Date Analyzed: 2015-02-06 Analyzed By: RR

				ICVs	ICVs	ICVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Sodium		2,3,4,5	mg/L	51.0	51.7	101	90 - 110	2015-02-06

#### Standard (CCV-1)

QC Batch: 119127 Date Analyzed: 2015-02-06 Analyzed By: RR

				$\mathrm{CCVs}$	$\mathrm{CCVs}$	$\mathrm{CCVs}$	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Sodium		2,3,4,5	mg/L	51.0	55.9	110	90 - 110	2015-02-06

Report Date: February 17, 2015 Work Order: 15012306 Page Number: 14 of 16 Brine Well-Buckeye Brine Well Buckeye, NM

Standard (CCV-1)

QC Batch: 119410 Date Analyzed: 2015-02-16 Analyzed By: RL

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		1,2,3,4,5	mg/L	25.0	23.8	95	90 - 110	2015-02-16

Standard (CCV-2)

QC Batch: 119410 Date Analyzed: 2015-02-16 Analyzed By: RL

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		1,2,3,4,5	mg/L	25.0	23.9	96	90 - 110	2015-02-16

Report Date: February 17, 2015 Work Order: 15012306 Page Number: 15 of 16 Brine Well-Buckeye Brine Well Buckeye, NM

# **Appendix**

## Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

## **Laboratory Certifications**

	Certifying	Certification	Laboratory
$\mathbf{C}$	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	PJLA	L14-93	Lubbock
2	Kansas	Kansas E- $10317$	Lubbock
3	LELAP	LELAP-02003	Lubbock
4	NELAP	T104704219-14-10	Lubbock
5		2014-018	Lubbock

## **Standard Flags**

- F Description
- B Analyte detected in the corresponding method blank above the method detection limit
- H Analyzed out of hold time
- J Estimated concentration
- Jb The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
- Je Estimated concentration exceeding calibration range.
- MI1 Split peak or shoulder peak
- MI2 Instrument software did not integrate
- MI3 Instrument software misidentified the peak
- MI4 Instrument software integrated improperly
- MI5 Baseline correction
- Qc Calibration check outside of laboratory limits.
- Qr RPD outside of laboratory limits
- Qs Spike recovery outside of laboratory limits.
- Qsr Surrogate recovery outside of laboratory limits.

Report Date: February 17, 2015 Work Order: 15012306 Page Number: 16 of 16 Brine Well-Buckeye Brine Well Buckeye, NM

F Description

U The analyte is not detected above the SDL

## Attachments

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.

LAB Order ID # 150/932

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9 **Lubbock, Texas 79424** Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296

5002 Basin Street, Suite A1 Midland, Texas 79703 Tel (432) 689-6301 Fax (432) 689-6313

200 East Sunset Rd., Suite E El Paso, Texas 7992 Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443

BioAquatic Testing 2501 Mayes Rd., Ste 100 **Carrollton, Texas 75006** Tel (972) 242-7750

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Report Date: February 17, 2015 Work Order: 15012306 Page Number: 1 of 1

# **Summary Report**

Lester Waynce Price Jr.
Price LLC

312 Encantado Ridge Ct. NE Rio Rancho, NM 87124

Report Date: February 17, 2015

Work Order: 15012306

Project Location: Buckeye, NM Project Name: Brine Well

			Date	$\operatorname{Time}$	Date
Sample	Description	Matrix	Taken	Taken	Received
385130	Fresh	water	2015-01-16	15:51	2015-01-21
385131	Brine	water	2015-01-16	14:10	2015-01-21

#### Sample: 385130 - Fresh

Param	Flag	Result	Units	RL
Chloride	Н	338	m mg/L	2.5
Dissolved Sodium	Qs	$\boldsymbol{221}$	m mg/L	1
pH		8.03	s.u.	2
Specific Gravity		0.9918	$\mathrm{g/ml}$	
Total Dissolved Solids		806	m mg/L	2.5

#### Sample: 385131 - Brine

Param	Flag	Result	$\operatorname{Units}$	RL
Chloride	Н	106000	m mg/L	2.5
Dissolved Sodium	Qs	81300	m mg/L	1
pН		7.12	s.u.	2
Specific Gravity		$\boldsymbol{1.124}$	g/ml	
Total Dissolved Solids		186000	m mg/L	2.5