

ZALCO LABORATORIES, INC.

Analytical & Consulting Services

4309 Armour Avenue
Bakersfield, California 93308

(661) 395-0539
FAX (661) 395-3069

August 9, 2023

Richie Lawrence
North Kern Water Storage District
P O BOX 81435
Bakersfield, CA 93380

TEL: (661) 393-3361
FAX: (661) 393-6884

Project ID: Irrigation Analysis
RE: 2307649

Dear Richie Lawrence:

Zalco Laboratories, Inc. received 5 samples on 7/31/2023 for the analyses presented in the following report.

We appreciate your business and look forward to serving you in the future. Please feel free to call our office if you have any questions regarding these test results.

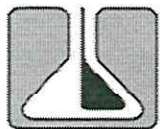
Sincerely,


Juan Magana
Project Manager
CC:

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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www.zalcolabs.com

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(661) 395-0539 FAX (661) 395-3069

North Kern Water Storage District
33380 Cawelo Ave.
Bakersfield, CA 93308

Laboratory No: 2307649-01A
Date Received: 07/31/23
Analysis Date: 07/31/23
Date Reported: 08/08/23

Attention: Richie Lawrence

Sample Identification: Kimberlina
Sampled by: Client

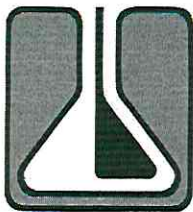
Date: 7/31/2023

Time: 6:52:00 AM

IRRIGATION WATER ANALYSIS

pH.....	7.74		
Specific Conductance	71.2	Specific Conductance (SC):.....	0.07
(micromhos/cm @ 25 C)		(millimhos/cm @ 25 C)	

Constituents	mg/L	meq/L
Calcium, Ca	5.2	0.3
Magnesium, Mg	0.74	0.061
Sodium, Na	< 7	0.00
Potassium, K	1.10	0.028
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO ₃	0.0	0
Bicarbonate, HCO ₃	25	0.4
Chloride, Cl	< 2.0	0.056
Sulfate, SO ₄	3.8	0.079
Nitrate, NO ₃	1.0	0.016
Totals (Sum)	45	0.9
Boron, B	1.10	
Total Dissolved Solids, (Gravimetric)	41	
Calculated Hardness, CaCO ₃	16.0	
Sodium Adsorption Ratio, SAR	0.0	
Exchangeable Sodium Percentage, ESP	-1.30	
Cation/Anion Balance, %	35.0%	
Langelier Scale Index	-1.38	



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P O BOX 81435
Bakersfield, CA 93380

Project: Irrigation Analysis
Project #: Irrigation Analysis
Attention: Richie Lawrence

Work Order No.: 2307649
Reported: 08/09/2023
Received: 07/31/23 09:55

Lab Sample ID: 2307649-01

Collected By: Jorge Gonzalez

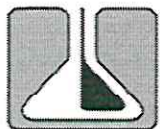
Client Sample ID: Kimberlina

Date Collected: 7/31/2023 6:52:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
<i>MCL Limits</i>								
Total Suspended Solids	11	2.5	mg/L		SM 2540 D	8/2/23	8/2/23	SIG

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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North Kern Water Storage District
33380 Cawelo Ave.
Bakersfield, CA 93308

Laboratory No: 2307649-02A
Date Received: 07/31/23
Analysis Date: 07/31/23
Date Reported: 08/08/23

Attention: Richie Lawrence

Sample Identification: Stiff House
Sampled by: Client

Date: 7/31/2023

Time: 7:24:00 AM

IRRIGATION WATER ANALYSIS

pH..... 7.91

Specific Conductance 36.7
(micromhos/cm @ 25 C)

Specific Conductance (SC):..... 0.04
(millimhos/cm @ 25 C)

Constituents	mg/L	meq/L
Calcium, Ca	4.1	0.2
Magnesium, Mg	0.62	0.051
Sodium, Na	< 7	0.00
Potassium, K	0.50	0.013
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	20	0.32
Chloride, Cl	< 2.0	0.056
Sulfate, SO4	3.2	0.067
Nitrate, NO3	0.71	0.011
Totals (Sum)	38	0.7
Boron, B	0.63	
Total Dissolved Solids, (Gravimetric)	33	
Calculated Hardness, CaCO3	13.0	
Sodium Adsorption Ratio, SAR	0.1	
Exchangeable Sodium Percentage, ESP	-1.10	
Cation/Anion Balance, %	40.0%	
Langelier Scale Index	-1.41	



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Bakersfield, CA 93380

Project: Irrigation Analysis
Project #: Irrigation Analysis
Attention: Richie Lawrence

Work Order No.: 2307649
Reported: 08/09/2023
Received: 07/31/23 09:55

Lab Sample ID: 2307649-02

Collected By: Jorge Gonzalez

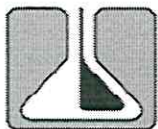
Client Sample ID: Stiff House

Date Collected: 7/31/2023 7:24:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
<i>MCL Limits</i>								
Total Suspended Solids	5.4	2.5	mg/L		SM 2540 D	8/2/23	8/2/23	SIG

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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North Kern Water Storage District
33380 Cawelo Ave.
Bakersfield, CA 93308

Laboratory No: 2307649-03A
Date Received: 07/31/23
Analysis Date: 07/31/23
Date Reported: 08/08/23

Attention: Richie Lawrence

Sample Identification: 7th Standard
Sampled by: Client

Date: 7/31/2023

Time: 8:10:00 AM

IRRIGATION WATER ANALYSIS

pH..... 7.51

Specific Conductance 25.1
(micromhos/cm @ 25 C)

Specific Conductance (SC):..... 0.03
(millimhos/cm @ 25 C)

Constituents	mg/L	meq/L
Calcium, Ca	5.0	0.3
Magnesium, Mg	0.74	0.061
Sodium, Na	< 7	0.00
Potassium, K	0.50	0.013
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	23	0.37
Chloride, Cl	< 2.0	0.056
Sulfate, SO4	3.3	0.069
Nitrate, NO3	0.99	0.016
Totals (Sum)	42	0.8
Boron, B	0.56	
Total Dissolved Solids, (Gravimetric)	89	
Calculated Hardness, CaCO3	16.0	
Sodium Adsorption Ratio, SAR	0.1	
Exchangeable Sodium Percentage, ESP	-1.10	
Cation/Anion Balance, %	36.0%	
Langelier Scale Index	-1.68	



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Bakersfield, CA 93380

Project: Irrigation Analysis
Project #: Irrigation Analysis
Attention: Richie Lawrence

Work Order No.: **2307649**
Reported: 08/09/2023
Received: 07/31/23 09:55

Lab Sample ID: **2307649-03**

Collected By: Jorge Gonzalez

Client Sample ID: 7th Standard

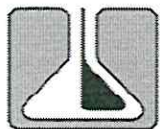
Date Collected: 7/31/2023 8:10:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
<i>MCL Limits</i>								
Total Suspended Solids	16	2.5	mg/L		SM 2540 D	8/2/23	8/2/23	SIG

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative

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North Kern Water Storage District
33380 Cawelo Ave.
Bakersfield, CA 93308

Laboratory No: 2307649-04A
Date Received: 07/31/23
Analysis Date: 07/31/23
Date Reported: 08/08/23

Attention: Richie Lawrence

Sample Identification: CT 1 @ Zachary
Sampled by: Client Date: 7/31/2023 Time: 8:34:00 AM

IRRIGATION WATER ANALYSIS

pH.....	7.52		
Specific Conductance	33.3	Specific Conductance (SC):.....	0.03
(micromhos/cm @ 25 C)		(millimhos/cm @ 25 C)	

Constituents	mg/L	meq/L
Calcium, Ca	3.5	0.2
Magnesium, Mg	0.51	0.042
Sodium, Na	< 7	0.00
Potassium, K	0.50	0.013
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO ₃	0.0	0
Bicarbonate, HCO ₃	18	0.3
Chloride, Cl	< 2.0	0.056
Sulfate, SO ₄	2.5	0.052
Nitrate, NO ₃	< 0.50	0
Totals (Sum)	35	0.6
Boron, B	0.42	
Total Dissolved Solids, (Gravimetric)	28	
Calculated Hardness, CaCO ₃	11.0	
Sodium Adsorption Ratio, SAR	0.1	
Exchangeable Sodium Percentage, ESP	-1.10	
Cation/Anion Balance, %	43.0%	
Langelier Scale Index	-1.89	



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North Kern Water Storage District
P O BOX 81435
Bakersfield, CA 93380

Project: Irrigation Analysis
Project #: Irrigation Analysis
Attention: Richie Lawrence

Work Order No.: 2307649
Reported: 08/09/2023
Received: 07/31/23 09:55

Lab Sample ID: 2307649-04

Collected By: Jorge Gonzalez

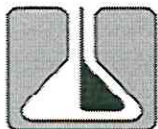
Client Sample ID: CT 1 @ Zachary

Date Collected: 7/31/2023 8:34:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
<i>MCL Limits</i>								
Total Suspended Solids	<2.5	2.5	mg/L		SM 2540 D	8/2/23	8/2/23	SIG

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North Kern Water Storage District
33380 Cawelo Ave.
Bakersfield, CA 93308

Laboratory No: 2307649-05A
Date Received: 07/31/23
Analysis Date: 07/31/23
Date Reported: 08/08/23

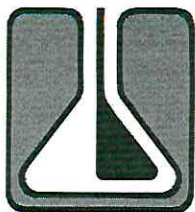
Attention: Richie Lawrence

Sample Identification: Head of Beardsley
Sampled by: Client Date: 7/31/2023 Time: 9:19:00 AM

IRRIGATION WATER ANALYSIS

pH..... 7.66
Specific Conductance 41 Specific Conductance (SC):..... 0.04
(micromhos/cm @ 25 C) (millimhos/cm @ 25 C)

Constituents	mg/L	meq/L
Calcium, Ca	4.5	0.2
Magnesium, Mg	0.66	0.054
Sodium, Na	< 7	0.00
Potassium, K	0.50	0.013
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO ₃	0.0	0
Bicarbonate, HCO ₃	23	0.37
Chloride, Cl	< 2.0	0.056
Sulfate, SO ₄	3.1	0.065
Nitrate, NO ₃	1.00	0.017
Totals (Sum)	41	0.8
Boron, B	0.47	
Total Dissolved Solids, (Gravimetric)	120	
Calculated Hardness, CaCO ₃	14.0	
Sodium Adsorption Ratio, SAR	0.1	
Exchangeable Sodium Percentage, ESP	-1.10	
Cation/Anion Balance, %	40.0%	
Langelier Scale Index	-1.58	



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North Kern Water Storage District
P O BOX 81435
Bakersfield, CA 93380

Project: Irrigation Analysis
Project #: Irrigation Analysis
Attention: Richie Lawrence

Work Order No.: 2307649
Reported: 08/09/2023
Received: 07/31/23 09:55

Lab Sample ID: 2307649-05

Collected By: Jorge Gonzalez

Client Sample ID: Head of Beardsley

Date Collected: 7/31/2023 9:19:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
<i>MCL Limits</i>								
Total Suspended Solids	16	2.5	mg/L		SM 2540 D	8/2/23	8/2/23	SIG

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative

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LABORATORY REPORT
ELAP STATE CERT. #3028

Page 1 of 1

CUSTOMER: Zalco Laboratories

ADDRESS: 4309 Armour Ave
Bakersfield, CA 93308

ATTENTION: Juan Magana

LOG NUMBER: 40515
DATE RECEIVED: 08-04-23
DATE COMPLETED: 08-04-23
REPORT DATE: 08-07-23

ANALYTICAL PARAMETER: Arsenic (As)

SAMPLE MATRIX: Water

Log Number	Sample Description	Constituent	-Results- (mg/L) (ug/L)	PQL/DLR (mg/L) (ug/L)	Method Number	MCL (mg/L) (ug/L)
40515-1	2307649-01	Arsenic As	0.004 4.06	0.001 1.00	EPA 200.8	0.010 10.0
40515-2	2307649-02	Arsenic As	0.003 3.13	0.001 1.00	EPA 200.8	0.010 10.0
40515-3	2307649-03	Arsenic As	0.004 3.50	0.001 1.00	EPA 200.8	0.010 10.0
40515-4	2307649-04	Arsenic As	0.002 2.47	0.001 1.00	EPA 200.8	0.010 10.0
40515-5	2307649-05	Arsenic As	0.004 3.69	0.001 1.00	EPA 200.8	0.010 10.0

NOTES:

- 1) PQL = Practical Quantitation Limit is the lowest level that can be reliably achieved within specific limits of precision and accuracy. It also depends upon the size and digestion/analytical techniques employed.
- 2) DLR = Detection Limit for the purpose of reporting for Regulated Inorganic Chemical.
- 3) MCL = Maximum Contaminant Level
- 4) N.D. = Not Detected
- 5) * Turbidity value is >1 NTU's. Sample was run undigested per Client's request.

REFERENCES:

- 1) ALPMA-AWWA-WPCF, "Standard Methods for the Examination of Water and Wastewater," 18th Edition.
- 2) EPA, "Methods for Chemical Analysis of Water and Wastes," 1983 United States Environmental Protection Agency, EPA 600/4-79-020, Revised March 1983.

Kurt Buckle - Laboratory Director

Midway Laboratory, Inc

Date:

8-7-23

Q.C. SPK Date: 8/17/23
Q.C. KC Date: 8/17/23

Midway Laboratory, Inc.
Petroleum-Industrial-Environmental
315 Main Street P.O. Box 1151
Tall California 93268

Phone (661) 765-2364 • Fax (661) 765-6920 • midwaylab@verizon.net • www.midwaylaboratory.com



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4309 Armour Avenue, Bakersfield, CA 93308 (661) 395-0539 FAX (661) 395-3069
2186 Eastman Avenue, Suite 103, Ventura, CA 93003, (805) 477-0114, Fax (805) 477-0125

www.zalcolabs.com

ANALYSIS REQUESTED

CHAIN OF CUSTODY, IUP#

Client PO:
Project ID:
Quote ID:

2307649

COMMENTS

Turnaround Time:

Routine (10 working days)

Rush By ☒ Working Days

EDT

State Form

EMAIL

Notes

283c

Number of Containers

Type of Containers

Sample Matrix

Notes

283c

COMPANY North Kern water Storage District

CONTACT Richie Lawrence

PHONE 661-978-9182

FAX

ADDRESS 33380 Cawelo Av Bakersfield CA

93308

E-MAIL clarence@northkernusd.com

SAMPLER (SIGNATURE)

Richie Lawrence

SAMPLE DESCRIPTION

DATE

TIME

Irrigation
TSS
Arsenic

Number of Containers

Type of Containers

Sample Matrix

Notes

283c

LAB #

1 Kimberlina

7-31-23 6:52

X X X

2

P

NP

Notes

283c

2

Stiff House

7-31-23 7:24

X X X

1

1

1

Notes

283c

3

7th Standard

7-31-23 8:10

X X X

1

1

1

Notes

283c

4

CT 1 @ Zachary

7-31-23 8:34

X X X

1

1

1

Notes

283c

5

Head of Beardsley

7-31-23 9:19

X X X

1

1

1

Notes

283c

Relinquished By:

Company

Date

Time

Received By:

Company:

Jorge Gonzalez

7/31/23

955

7/31/23

955

20200

NOTE: Samples Discarded 30 days after results unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

Sample Type Key:

Aq-Aqueous; BS-Biosolid; DW-Drinking Water; GW-Groundwater; G-Gas
LPG-Liquid Petroleum Gas; OL-Oil; P-Petroleum; S-Solid/Soil; ST-Storm water
WW-Wastewater