



ZALCO LABORATORIES, INC.

Analytical & Consulting Services

4309 Armour Avenue
Bakersfield, California 93308

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

September 13, 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: 2309005

Dear Richie Lawrence:

Zalco Laboratories, Inc. received 5 samples on 9/1/2023 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,

A handwritten signature in black ink, appearing to read "Juan Magana".

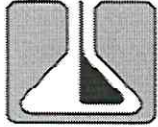
Juan Magana
Project Manager

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.

Note: Samples analyzed for regulatory purposes should be put on ice immediately after sampling and received by the laboratory at temperatures between 0-6°C. Microbiological analysis requires samples to be at least 4-10°C when received at the laboratory. For additional information regarding the limitations of the method(s) referred to, please call us at 661-395-0539.



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

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

Laboratory No: 2309005-01A
Date Received: 09/01/23
Analysis Date: 09/01/23
Date Reported: 09/13/23

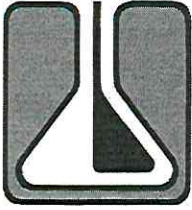
Attention: Richie Lawrence

Sample Identification: Kimberlina
Sampled by: Jorge Gonzalez Date: 9/1/2023 Time: 6:57:00 AM

IRRIGATION WATER ANALYSIS

pH..... 7.70
Specific Conductance 65
(micromhos/cm @ 25 C) Specific Conductance (SC):..... 0.07
(millimhos/cm @ 25 C)

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	5.1	0.3
Magnesium, Mg	0.83	0.068
Sodium, Na	< 7	0.00
Potassium, K	1.10	0.028
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	29	0.48
Chloride, Cl	2.7	0.076
Sulfate, SO4	3.7	0.077
Nitrate, NO3	1.0	0.016
Totals (Sum)	51	1.0
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	49	
Calculated Hardness, CaCO3	17	
Sodium Adsorption Ratio, SAR	0.0	
Exchangeable Sodium Percentage, ESP	-1.3	
Cation/Anion Balance, %	39.0%	
Langelier Scale Index	-1.36	



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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.: 2309005 Reported: 09/13/2023 Received: 09/01/23 09:45
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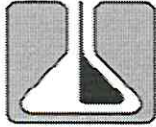
Lab Sample ID: 2309005-01	Collected By: Jorge Gonzalez
Client Sample ID: Kimberlina	Date Collected: 9/1/2023 6:57:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
			<i>MCL Limits</i>					
Total Suspended Solids	6.5	2.5	mg/L		SM 2540 D	9/11/23	9/11/23	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: 2309005-02A
Date Received: 09/01/23
Analysis Date: 09/01/23
Date Reported: 09/13/23

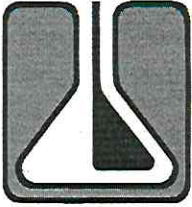
Attention: Richie Lawrence

Sample Identification: Stiff House
Sampled by: Jorge Gonzalez Date: 9/1/2023 Time: 7:23:00 AM

IRRIGATION WATER ANALYSIS

pH.....	7.18		
Specific Conductance	28.5	Specific Conductance (SC):.....	0.03
(micromhos/cm @ 25 C)		(millimhos/cm @ 25 C)	

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	1.7	0.1
Magnesium, Mg	0.31	0.025
Sodium, Na	< 7	0.00
Potassium, K	0.53	0.014
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	13	0.2
Chloride, Cl	2.3	0.065
Sulfate, SO4	1.6	0.033
Nitrate, NO3	0.84	0.014
Totals (Sum)	27	0.4
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	18	
Calculated Hardness, CaCO3	5.5	
Sodium Adsorption Ratio, SAR	0.1	
Exchangeable Sodium Percentage, ESP	-1.1	
Cation/Anion Balance, %	59.0%	
Langelier Scale Index	-2.70	



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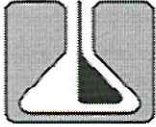
North Kern Water Storage District P O BOX 81435 Bakersfield, CA 93380	Project: Irrigation Analysis Project #: Irrigation Analysis Attention: Richie Lawrence	Work Order No.: 2309005 Reported: 09/13/2023 Received: 09/01/23 09:45
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Lab Sample ID: 2309005-02 Client Sample ID: Stiff House	Collected By: Jorge Gonzalez Date Collected: 9/1/2023 7:23:00AM
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Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
			<i>MCL Limits</i>					
Total Suspended Solids	15	2.5	mg/L		SM 2540 D	9/11/23	9/11/23	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: 2309005-03A
Date Received: 09/01/23
Analysis Date: 09/01/23
Date Reported: 09/13/23

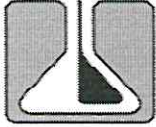
Attention: Richie Lawrence

Sample Identification: 7th Standard
Sampled by: Jorge Gonzalez Date: 9/1/2023 Time: 7:56:00 AM

IRRIGATION WATER ANALYSIS

pH.....	7.68		
Specific Conductance	65.8	Specific Conductance (SC):.....	0.07
(micromhos/cm @ 25 C)		(millimhos/cm @ 25 C)	

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	5.8	0.3
Magnesium, Mg	0.93	0.076
Sodium, Na	< 7	0.00
Potassium, K	1.1	0.028
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	29	0.47
Chloride, Cl	2.2	0.062
Sulfate, SO4	3.6	0.075
Nitrate, NO3	1.20	0.02
Totals (Sum)	51	1.0
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	25	
Calculated Hardness, CaCO3	18.0	
Sodium Adsorption Ratio, SAR	0.0	
Exchangeable Sodium Percentage, ESP	-1.3	
Cation/Anion Balance, %	34.0%	
Langelier Scale Index	-1.31	



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Bakersfield, CA 93308

Laboratory No: 2309005-04A
Date Received: 09/01/23
Analysis Date: 09/01/23
Date Reported: 09/13/23

Attention: Richie Lawrence

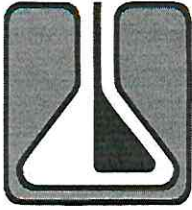
Sample Identification: CT 1 @ Zachary
Sampled by: Jorge Gonzalez Date: 9/1/2023 Time: 8:18:00 AM

IRRIGATION WATER ANALYSIS

pH..... 7.38
Specific Conductance 64.4
(micromhos/cm @ 25 C)

Specific Conductance (SC):..... 0.06
(millimhos/cm @ 25 C)

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	4.6	0.2
Magnesium, Mg	0.76	0.063
Sodium, Na	< 7	0.00
Potassium, K	1.1	0.028
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	24	0.39
Chloride, Cl	2.3	0.065
Sulfate, SO4	3.7	0.077
Nitrate, NO3	0.86	0.014
Totals (Sum)	44	0.9
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	8.0	
Calculated Hardness, CaCO3	15	
Sodium Adsorption Ratio, SAR	0.10	
Exchangeable Sodium Percentage, ESP	-1.1	
Cation/Anion Balance, %	38.0%	
Langelier Scale Index	-1.77	



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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.: 2309005 Reported: 09/13/2023 Received: 09/01/23 09:45
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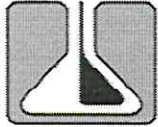
Lab Sample ID: 2309005-04	Collected By: Jorge Gonzalez
Client Sample ID: CT 1 @ Zachary	Date Collected: 9/1/2023 8:18:00AM

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	9/11/23	9/11/23	SIG

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TLC: 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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Bakersfield, CA 93308

Laboratory No: 2309005-05A
Date Received: 09/01/23
Analysis Date: 09/01/23
Date Reported: 09/13/23

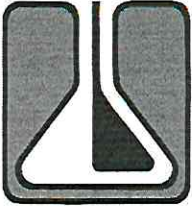
Attention: Richie Lawrence

Sample Identification: Head of Beardsley
Sampled by: Jorge Gonzalez Date: 9/1/2023 Time: 9:11:00 AM

IRRIGATION WATER ANALYSIS

pH.....	7.67		
Specific Conductance	66.5	Specific Conductance (SC):.....	0.07
(micromhos/cm @ 25 C)		(millimhos/cm @ 25 C)	

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	4.6	0.2
Magnesium, Mg	0.82	0.067
Sodium, Na	< 7	0.00
Potassium, K	1.1	0.028
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	29	0.48
Chloride, Cl	2.3	0.065
Sulfate, SO4	3.6	0.075
Nitrate, NO3	1.30	0.021
Totals (Sum)	50	1.0
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	27	
Calculated Hardness, CaCO3	15	
Sodium Adsorption Ratio, SAR	0.10	
Exchangeable Sodium Percentage, ESP	-1.1	
Cation/Anion Balance, %	43.0%	
Langelier Scale Index	-1.42	



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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.: 2309005 Reported: 09/13/2023 Received: 09/01/23 09:45
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Lab Sample ID: 2309005-05	Collected By: Jorge Gonzalez
Client Sample ID: Head of Beardsley	Date Collected: 9/1/2023 9:11:00AM

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	9/11/23	9/11/23	SIG

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTL: 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. #5028

CUSTOMER: Zalco Laboratories

ADDRESS: 4309 Armour Ave
Bakersfield, CA 93308

ATTENTION: Juan Magana

ANALYTICAL PARAMETER: Arsenic (As)

SAMPLE MATRIX: Water

LOG NUMBER: 40673
DATE RECEIVED: 09-08-23
DATE COMPLETED: 09-08-23
REPORT DATE: 09-08-23

Log Number	Sample Description	Constituent	-Results- (mg/L) (ug/L)	PQL/DLR (mg/L) (ug/L)	Method Number	MCL (mg/L) (ug/L)
*40673-1	2309005-01	Arsenic As	0.004 4.34	0.001 1.00	EPA 200.8	0.010 10.0
*40673-2	2309005-02	Arsenic As	0.002 1.71	0.001 1.00	EPA 200.8	0.010 10.0
*40673-3	2309005-03	Arsenic As	0.005 5.12	0.001 1.00	EPA 200.8	0.010 10.0
*40673-4	2309005-04	Arsenic As	0.004 3.83	0.001 1.00	EPA 200.8	0.010 10.0
*40673-5	2309005-05	Arsenic As	0.004 4.14	0.001 1.00	EPA 200.8	0.010 10.0

NOTES:

- 1) POL = 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 ran undigested per Client's request. Results are nonregulatory.

REFERENCES:

- 1) ALPHA-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

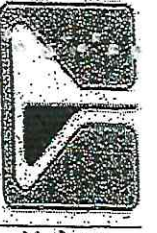
Midway Laboratory, Inc

Date:

9.8.23

Q.C. TS Date: 9.8.23
Q.C. KC Date: 9/8/23

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



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 4309 Armour Avenue, Bakersfield, CA 93308 (661) 395-0639 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, I#

2309005
 2888

Client PO: _____
 Project ID: _____
 Quote ID: _____

COMPANY: North Kern Water Storage District
 CONTACT: Richie Lawrence
 PHONE: (661) 978-9182 FAX: _____
 ADDRESS: 33380 GAWELO AVE BAKERSFIELD
 CA 93308
 E-MAIL: Lawrence@northkernwsd.com
 SAMPLER (SIGNATURE): [Signature]

LAB #	SAMPLE DESCRIPTION	DATE	TIME	Irrigation	TSS	Arsenic	Number of Containers	Type of Containers	Sample Matrix	Notes
1	Kimberlax	9-1-03	6:54	X	X	X	2	P	NP	
2	STIFF HOUSE	9-1-03	7:23	X	X	X	2	P	NP	
3	7th Standard	9-1-03	7:56	X	X	X	2	P	NP	
4	CT 1 @ CACHARY	9-1-03	8:18	X	X	X	2	P	NP	
5	Head of Beardsley	9-1-03	9:11	X	X	X	2	P	NP	

Relinquished By: _____ Company: _____ Date: 9/1/03 Time: 9:45 Received By: AMCA 9/1/03 9:45 Company: ZALCO
 Jorge Gonzalez

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: Ag-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

RUSH!
 COMMENTS

Turnaround Time: _____
 Routine (10 working days)
 Rush By: Working Days
 EDT
 State Form
 EMAIL

Notes: 2 USC

9/6/03

SPLIT