

ZALCO LABORATORIES, INC.

Analytical & Consulting Services

4309 Armour Avenue
Bakersfield, California 93308

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

October 16, 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: 2310012

Dear Richie Lawrence:

Zalco Laboratories, Inc. received 5 samples on 10/2/2023 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.

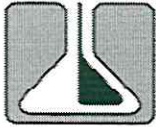
Sincerely,


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

Laboratory No: 2310012-01A
Date Received: 10/02/23
Analysis Date: 10/02/23
Date Reported: 10/16/23

Attention: Richie Lawrence

Sample Identification: Kimberlina
Sampled by: Client

Date: 10/2/2023 Time: 8:00:00 AM

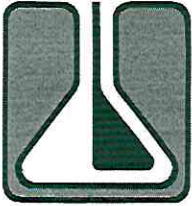
IRRIGATION WATER ANALYSIS

pH..... 7.69

Specific Conductance 105
(micromhos/cm @ 25 C)

Specific Conductance (SC):..... 0.11
(millimhos/cm @ 25 C)

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	2.20	0.1
Magnesium, Mg	0.45	0.037
Sodium, Na	7.5	0.33
Potassium, K	1.0	0.026
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	39	0.63
Chloride, Cl	2.6	0.073
Sulfate, SO4	5.9	0.12
Nitrate, NO3	0.68	0.011
Totals (Sum)	59	1.3
Boron, B	0.11	
Total Dissolved Solids, (Gravimetric)	15	
Calculated Hardness, CaCO3	7.4	
Sodium Adsorption Ratio, SAR	1.20	
Exchangeable Sodium Percentage, ESP	0.5	
Cation/Anion Balance, %	33.0%	
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.: 2310012 Reported: 10/16/2023 Received: 10/02/23 10:38
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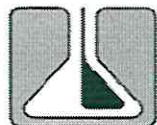
Lab Sample ID: 2310012-01	Collected By: Jorge Gonzalez
Client Sample ID: Kimberlina	Date Collected: 10/2/2023 8:00:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
			<i>MCL Limits</i>					
Total Suspended Solids	3.1	2.5	mg/L		SM 2540 D	10/4/23	10/4/23	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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Bakersfield, CA 93380

Laboratory No: 2310012-02A
Date Received: 10/02/23
Analysis Date: 10/02/23
Date Reported: 10/16/23

Attention: Richie Lawrence

Sample Identification: Stiff House
Sampled by: Client

Date: 10/2/2023 Time: 8:29

IRRIGATION WATER ANALYSIS

pH.....	7.48		
Specific Conductance.....	48.5	Specific Conductance (SC):.....	0.0485
(micromhos/cm @ 25 C)		(millimhos/cm @ 25 C)	

Constituents	mg/L	meq/L
Calcium, Ca	0.77	0.04
Magnesium, Mg	0.17	0.014
Sodium, Na	< 7.0	0.0
Potassium, K	0.7	0.018
Alkalinity as:		
Hydroxide, OH	< 10	0
Carbonate, CO3	< 10	0
Bicarbonate, HCO3	24	0.39
Chloride, Cl	< 2	0.06
Sulfate, SO4	3.3	0.07
Nitrate, NO3	< 0.50	0
Totals (Sum)	17	0.59
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric) at 180 C	24	
Calculated Hardness, CaCO3	2.6	
Sodium Adsorption Ratio, SAR	0.1	
Exchangeable Sodium Percentage, ESP	-1.1	
Cation/Anion Balance, %	81.0%	
Langelier Scale Index	-2.47	
Gypsum Requirement, lb/ac-ft	0.0	



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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.: 2310012 Reported: 10/16/2023 Received: 10/02/23 10:38
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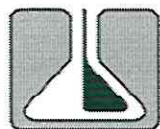
Lab Sample ID: 2310012-02 Client Sample ID: Stiff House	Collected By: Jorge Gonzalez Date Collected: 10/2/2023 8:29:00AM
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Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
			<i>MCL Limits</i>					
Total Suspended Solids	16	2.5	mg/L		SM 2540 D	10/4/23	10/4/23	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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Bakersfield, CA 93380

Laboratory No: 2310012-03A
Date Received: 10/02/23
Analysis Date: 10/02/23
Date Reported: 10/16/23

Attention: Richie Lawrence

Sample Identification: 7th Standard
Sampled by: Client

Date: 10/2/2023 Time: 8:55:00 AM

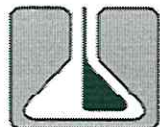
IRRIGATION WATER ANALYSIS

pH..... 7.72

Specific Conductance 103
(micromhos/cm @ 25 C)

Specific Conductance (SC):..... 0.10
(millimhos/cm @ 25 C)

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	2.00	0.1
Magnesium, Mg	0.40	0.033
Sodium, Na	7.5	0.33
Potassium, K	1.0	0.026
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	34	0.55
Chloride, Cl	2.3	0.065
Sulfate, SO4	5.7	0.12
Nitrate, NO3	0.87	0.014
Totals (Sum)	53	1.2
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	29	
Calculated Hardness, CaCO3	6.6	
Sodium Adsorption Ratio, SAR	1.30	
Exchangeable Sodium Percentage, ESP	0.7	
Cation/Anion Balance, %	31.0%	
Langelier Scale Index	-1.67	



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Bakersfield, CA 93380

Laboratory No: 2310012-04A
Date Received: 10/02/23
Analysis Date: 10/02/23
Date Reported: 10/16/23

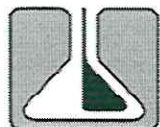
Attention: Richie Lawrence

Sample Identification: CT 1 @ Zachary
Sampled by: Client Date: 10/2/2023 Time: 9:25:00 AM

IRRIGATION WATER ANALYSIS

pH.....	7.49		
Specific Conductance	99	Specific Conductance (SC):.....	0.10
(micromhos/cm @ 25 C)		(millimhos/cm @ 25 C)	

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	2.00	0.1
Magnesium, Mg	0.40	0.033
Sodium, Na	< 7.0	0.00
Potassium, K	1.0	0.026
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	36	0.59
Chloride, Cl	2.3	0.065
Sulfate, SO4	5.9	0.12
Nitrate, NO3	0.87	0.014
Totals (Sum)	55	0.9
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	14	
Calculated Hardness, CaCO3	6.6	
Sodium Adsorption Ratio, SAR	0.10	
Exchangeable Sodium Percentage, ESP	-1.1	
Cation/Anion Balance, %	72.0%	
Langelier Scale Index	-1.86	



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Laboratory No: 2310012-05A
Date Received: 10/02/23
Analysis Date: 10/02/23
Date Reported: 10/16/23

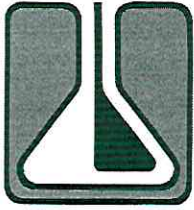
Attention: Richie Lawrence

Sample Identification: Head of Beardsley
Sampled by: Client Date: 10/2/2023 Time: 10:02:00 AM

IRRIGATION WATER ANALYSIS

pH..... 7.77
Specific Conductance 102 Specific Conductance (SC):..... 0.10
(micromhos/cm @ 25 C) (millimhos/cm @ 25 C)

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	2.70	0.1
Magnesium, Mg	0.52	0.043
Sodium, Na	< 7.0	0.00
Potassium, K	1.4	0.036
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	38	0.63
Chloride, Cl	2.3	0.065
Sulfate, SO4	5.4	0.11
Nitrate, NO3	0.90	0.015
Totals (Sum)	59	1.0
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	7.0	
Calculated Hardness, CaCO3	8.9	
Sodium Adsorption Ratio, SAR	0.10	
Exchangeable Sodium Percentage, ESP	-1.1	
Cation/Anion Balance, %	65.0%	
Langelier Scale Index	-1.40	



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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.: 2310012 Reported: 10/16/2023 Received: 10/02/23 10:38
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Lab Sample ID: 2310012-05 Client Sample ID: Head of Beardsley	Collected By: Jorge Gonzalez Date Collected: 10/2/2023 10:02:00AM
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Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
<i>MCL Limits</i>								
Total Suspended Solids	7.8	2.5	mg/L		SM 2540 D	10/4/23	10/4/23	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. #3028

CUSTOMER: Zalco Laboratories
ADDRESS: 4309 Armour Ave
Bakersfield, CA 93308

LOG NUMBER: 40803
DATE RECEIVED: 10-04-23
DATE COMPLETED: 10-06-23
REPORT DATE: 10-06-23

ATTENTION: Juan Magana

ANALYTICAL PARAMETER: Arsenic (As)

SAMPLE MATRIX: Wastewater

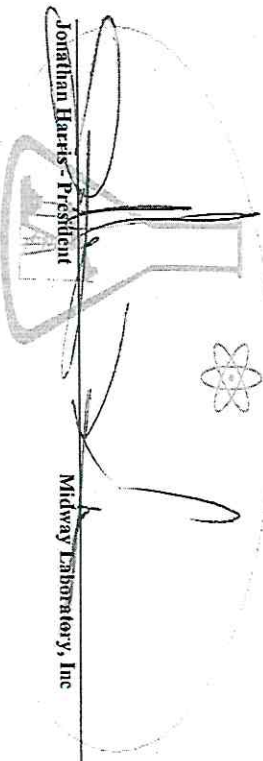
Log Number	Sample Description	Constituent	-Results-		PQL/DLR		Method Number	MCL		
			(mg/L)	(ug/L)	(mg/L)	(ug/L)		(mg/L)	(ug/L)	
40803-1	2310012-01	Arsenic	As	0.005	4.55	0.001	1.00	EPA 200.8	0.010	10.0
40803-2	2310012-02	Arsenic	As	0.003	2.51	0.001	1.00	EPA 200.8	0.010	10.0
40803-3	2310012-03	Arsenic	As	0.005	4.53	0.001	1.00	EPA 200.8	0.010	10.0
40803-4	2310012-04	Arsenic	As	0.004	3.81	0.001	1.00	EPA 200.8	0.010	10.0
40803-5	2310012-05	Arsenic	As	0.005	4.86	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. Results are nonregulatory.

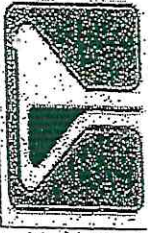
REFERENCES:

- 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.


 Jonathan Harris - President
 Midway Laboratory, Inc.

Date: 10/6/23

Q.C. TS Date: 10.6.23
 Q.C. KC Date: 10/14/23



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 4309 Armour Avenue, Bakersfield, CA 93308 (661) 395-0539 FAX (661) 395-3069 www.zalcolabs.com
 2136 Eastman Avenue, Suite 103, Ventura, CA 93003, (805) 477-0114, Fax (805) 477-0125

CHAIN OF CUSTODY, ID#

Client P.O.:
 Project ID:
 Quote ID:

ANALYSIS REQUESTED

2310012

RUSH!
 COMMENTS
 Turnaround Time:

Routine (10 working days)
 Rush By Working Days
 EDT NO 2.6
 State Form NO 2.6
 EMAIL

Notes: 197C

Number of Containers
 Type of Containers
 Sample Matrix

LAB #	SAMPLE DESCRIPTION	DATE	TIME	Irrigation	TSS	Arsenic	Notes
1	Kimberlina	10-2-23	8:00	X	X	X	2 P NP
2	Stiff House	10-2-23	8:20	X	X	X	SPLIT
3	7th Standard	10-2-23	8:55	X	X	X	
4	C.T. 1 @ Zachary	10-2-23	9:25	X	X	X	10-2-23
5	Head of Beardsley	10-2-23	10:00	X	X	X	

Relinquished By: Dave Company: Zalco Date: 10/2/23 Time: 1038 Received By: AMCA Date: 10/2/23 Time: 1038 Company: Zalco

Relinquished By: Gonzalez Company: Zalco Date: 10/2/23 Time: 1038 Received By: AMCA Date: 10/2/23 Time: 1038 Company: Zalco

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