Desalination and Water Purification Research Program
Report No. XX

Title

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Report No. XX

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Prepared by:

XX

Prepared for:

Bureau of Reclamation under Agreement No. XX

Mission Statements

The U.S. Department of the Interior protects and manages the Nation’s natural resources and cultural heritage; provides scientific and other information about those resources; honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated Island Communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

**Disclaimer** – The views, analysis, recommendations, and conclusions in this report are those of the authors and do not represent official or unofficial policies or opinions of the United States Government. The United States takes no position with regard to any findings, conclusions, or recommendations made; as such, mention of trade names or commercial products does not constitute their endorsement by the United States Government.

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Acronyms and Abbreviations

XX XX

Symbols

cm centimeter(s)

°F degrees Fahrenheit

μg/L micrograms per liter

Metric Conversions

|  |  |
| --- | --- |
| Unit | Metric equivalent |
| 1 gallon | 3.785 liters |
| 1 gallon per minute | 3.785 liters per minute |
| 1 gallon per square foot of membrane area per day | 40.74 liters per square meter per day |
| 1 inch | 2.54 centimeters |
| 1 million gallons per day | 3,785 cubic meters per day |
| 1 pound per square inch | 6.895 kilopascals |
| 1 square foot | 0.093 square meters |
| °F (temperature measurement) | (°F–32) × 0.556 = °C |
| 1 °F (temperature change or difference) | 0.556 °C |

Contents

Page

[Executive Summary ES-1](#_Toc112313093)

[1.0 Introduction 1](#_Toc112313094)

[1.1 Project Background 1](#_Toc112313095)

[1.1.1 Objectives and Goals 1](#_Toc112313096)

[1.1.2 Previous Research 1](#_Toc112313097)

[1.2 Project Overview 2](#_Toc112313098)

[1.2.1 Overall Technical Approach and Concepts 2](#_Toc112313099)

[1.2.2 Overall Accomplishments 2](#_Toc112313100)

[2.0 Technical Approach and Methods 3](#_Toc112313101)

[2.1 Technological Approach 3](#_Toc112313102)

[2.1.1 Research Idea 3](#_Toc112313103)

[2.1.2 Equations 3](#_Toc112313104)

[2.2 Project Facility/Physical Apparatus 3](#_Toc112313105)

[2.2.1 Design Criteria 3](#_Toc112313106)

[2.2.2 Source Water 4](#_Toc112313107)

[2.2.3 Setup 4](#_Toc112313108)

[2.2.4 Runs and Experiments 4](#_Toc112313109)

[3.0 Results and Discussion 5](#_Toc112313110)

[3.1 Results 5](#_Toc112313111)

[3.2 Analysis 5](#_Toc112313112)

[3.3 Conclusions 5](#_Toc112313113)

[3.4 Challenges 5](#_Toc112313114)

[3.5 Recommended Next Steps 5](#_Toc112313115)

[4.0 References 7](#_Toc112313116)

[5.0 Glossary 9](#_Toc112313117)

[6.0 Acknowledgments 11](#_Toc112313118)

**Tables**

Table Page

 [1](#_Toc31870617) [Summary of water quality data 4](#_Toc112313347)

**Figures**

Figure Page

 [1 Figure title](#_Toc31956841)

Executive Summary

# Introduction

XX

## Project Background

XX

### Objectives and Goals

XX

### Previous Research

XX

## Project Overview

### Overall Technical Approach and Concepts

XX

### Overall Accomplishments

XX

# Technical Approach and Methods

XX

## Technological Approach

XX

### Research Idea

XX

### Equations

Use equations only if absolutely necessary (and use this format):

$D\_{den}=\frac{2×10^{14}}{√3×D\_{int}}$ (Equation 1)

Where:

*Dint* = Interpore distance

*Dden* = Pore density

## Project Facility/Physical Apparatus

Design Criteria

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### Source Water

What source water did you use? Provide a brief table if appropriate.

| Table .—Summary of water quality data |
| --- |
| **Parameter** | **Units1** | **Feed** | **Product** | **Concentrate** |
| TDS | mg/L | 18,600 | 10,400 | 22,300 |
| Sodium | mg/L | 4,100 | 1,700 | 5,500 |
| Calcium | mg/L | 2,200 | 950 | 1,600 |
| Magnesium | mg/L | 600 | 300 | 700 |
| Chloride | mg/L | 9,900 | 5,700 | 10,600 |
| Sulfate | mg/L | 2,200 | 600 | 3,300 |
| Bicarbonate | mg/L | 200 | 100 | 300 |
|  1 mg/L = milligrams per liter. |

### Setup

XX)

### Runs and Experiments

XX

# Results and Discussion

Results

XX

## Analysis

XX

## Conclusions

XX

## Challenges

XX

## Recommended Next Steps

XX

# References

See guidance in comment

# Glossary

**Word:** Definition.

**Word:** Definition.

# Acknowledgments

The Desalination and Water Purification Research and Development Program, Bureau of Reclamation, sponsored this research. XX

Appendix A

Title

Insert appendix text here

Page 2 of appendix (with correct header/footer)

Page 3 of appendix with correct header/footer