

CASE STUDY: BIOLOGIX SALT BINDER OKLAHOMA CORPORATION COMMISSION

Introduction

The product used for this application is BIOLOGIX SALT BINDER. BIOLOGIX SALT BINDER is a proprietary humidified soil extract with the multiple essential soil microbes included in the formulation. The product works by providing an organic substructure with an extremely high ion exchange capacity that the Na⁺⁺ and Cl⁻ ions can bind and be charged neutralized (via an ionic bond). The carbon chain then becomes a food supply for the natural **soil and product's adjunct microbes, which over time dissipates the salts.** A specialized blend of enzymes significantly increases the degradation process by facilitating the transfer and uptake of nutrient by the microbial population.

Application

The results indicate a starting chloride level of 72 ppm and a total soluble salt level of 740 ppm. The same patch of soil was then inoculated with three different liquid samples, representative of waste generated from an oil rig. These samples were salt water (#1), oily waste water (#2), and drilling mud (#3). The chloride levels and total soluble salt levels of each were tested prior to application and are listed below:

SAMPLE	CHLORDIES	T. SOLUBLE SALT
#1	195,750	234,000
#2	N/A (mostly oil)	N/A (mostly oil)
#3	95,000	202,960

Shortly after the application to three locations within the soil patch, the three locations were then treated with appropriate amounts of the BIOLOGIX SALT BINDER product.

Results:

Soil samples were obtained from the three locations approximately two (2) weeks after the soil was inoculated. The results, which are only reported for samples #1 and #3 due to #2 being primarily oil, indicate the following reductions:

SAMPLE	CHLORIDES START	CHLORIDES FINISH	T.S SALTS START	T.S SALTS FINISH
#1	195,750	35	234,000	8,400
#3	95,000	37	202,960	710

From the above data, the chloride contribution from the liquid was not only neutralized, but was reduced under the initial soil base-line value. The total soluble salts were reduced over 98% for sample number one and were reduced under the base-line value for sample #3.



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Laboratory Report # 95930

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FOUR SOIL SAMPLES AND THREE LIQUID SAMPLES
PROJECT: OCC - CANTON
DATE SAMPLED: 11/15/06
DATE RECEIVED: 11/29/06

ANALYSIS OF SOIL SAMPLES (in mg/Kg or PPM):

	<u>CHLORIDES</u>	<u>T. SOLUBLE SALTS</u>
TREATED SOIL # 1B	35	8,400
TREATED SOIL # 2B	48	1,000
TREATED SOIL # 3B	37	710
BACKGROUND/CONTROL	72	740

ANALYSIS OF LIQUID SAMPLES (in mg/L):

	<u>CHLORIDES</u>	<u>T. DISSOLVED SOLIDS</u>
# 1	195,750	234,000
# 2	MOSTLY OIL	-----
# 3	95,000	202,960


CERTIFIED BY: SURESH JOSHI
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