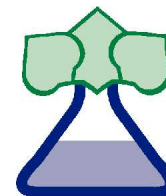


American Agricultural Laboratory, Inc.

700 West D Street / PO Box 370 / McCook, Nebraska 69001

Office: 308-345-3670 / FAX: 308-345-7880

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WATER SAMPLE REPORT

UNL COOPERATIVE EXTENSION
PERKINS COUNTY
76025 RD 329
GRANT NE 69140

Account Number: 11580

Date & Time Sampled: 11/16/2017 @ 0000
Date & Time Received: 11/16/2017 @ 1200
Date Reported: 11/22/2017

Name: PERKINS CO
Sample ID: SF

Lab Number: 76191

Constituent Analyzed	Results	Drinking Water Guidelines	Analytical Method
pH	7.8 s.u.	6.5 -- 8.5	SM 4500 H B.
Electrical Conductivity	0.35 mmhos/cm	< 0.8	SM 2510 B
Total Dissolved Solids (calculated)	222 mg/L	< 500	SM 1030F
Carbonate	< 1 mg/L	N/A	SM 2320 B
Bicarbonate	184 mg/L	N/A	SM 2320 B
Alkalinity (as CaCO ₃)	151 mg/L	N/A	SM 2320 B
Calcium	43 mg/L	N/A	SM 3120 B
Magnesium	13 mg/L	N/A	SM 3120 B
Potassium	11 mg/L	N/A	SM 3120 B
Sodium	9 mg/L	N/A	SM 3120 B
Nitrate-N plus Nitrite-N *	3.80 mg/L	10 mg/L	Lachat 10-107-04-1.
Phosphorus (Total)	< 0.12 mg/L	N/A	SM 3120 B
Sulfur (Total)	6.60 mg/L	< 80	SM 3120 B
Chloride	19.00 mg/L	< 250	SM 4500 Cl E
Iron	0.12 mg/L	< 0.3	SM 3120 B
Manganese	0.11 mg/L	< 0.05	SM 3120 B
Zinc	< 0.01 mg/L	< 5.0	SM 3120 B
Copper	< 0.01 mg/L	1.3 mg/L	SM 3120 B
Boron	< 0.06 mg/L	N/A	SM 3120 B
Total Hardness (Ca+Mg) as CaCO ₃	9.40 grains/gallon	Hard	SM 2340 B
Lime (as CaCO ₃)	408 lbs/acre-foot		SM 2340 B
SAR	0.3		FAO 29
SARadj	0.6		FAO 29
Salinity Hazard	LOW		FAO 29
Sodium Hazard, SAR	LOW		FAO 29
Sodium Hazard, SARadj	LOW		FAO 29

BacT Sterile Bottle: NO

* Date & Time Analyzed: 11/20/2017 @ 1223

* Nitrate-N plus Nitrite-N Reporting Limit = 0.20 mg/L

** Date & Time Started:

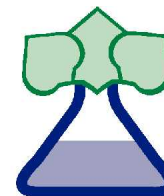
BY: Electronically Approved by: Kevin Grooms

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WATER SAMPLE REPORT

UNL COOPERATIVE EXTENSION
PERKINS COUNTY
76025 RD 329
GRANT NE 69140

Account Number: 11580

Date & Time Sampled: 11/16/2017 @ 0000
Date & Time Received: 11/16/2017 @ 1200
Date Reported: 11/22/2017

Name: PERKINS CO
Sample ID: DR

Lab Number: 76192

Constituent Analyzed	Results	Drinking Water Guidelines	Analytical Method
pH	7.7 s.u.	6.5 -- 8.5	SM 4500 H B.
Electrical Conductivity	0.29 mmhos/cm	< 0.8	SM 2510 B
Total Dissolved Solids (calculated)	187 mg/L	< 500	SM 1030F
Carbonate	< 1 mg/L	N/A	SM 2320 B
Bicarbonate	189 mg/L	N/A	SM 2320 B
Alkalinity (as CaCO ₃)	155 mg/L	N/A	SM 2320 B
Calcium	34 mg/L	N/A	SM 3120 B
Magnesium	8 mg/L	N/A	SM 3120 B
Potassium	8 mg/L	N/A	SM 3120 B
Sodium	12 mg/L	N/A	SM 3120 B
Nitrate-N plus Nitrite-N *	2.98 mg/L	10 mg/L	Lachat 10-107-04-1.
Phosphorus (Total)	< 0.12 mg/L	N/A	SM 3120 B
Sulfur (Total)	5.00 mg/L	< 80	SM 3120 B
Chloride	4.00 mg/L	< 250	SM 4500 Cl E
Iron	0.20 mg/L	< 0.3	SM 3120 B
Manganese	0.04 mg/L	< 0.05	SM 3120 B
Zinc	0.16 mg/L	< 5.0	SM 3120 B
Copper	< 0.01 mg/L	1.3 mg/L	SM 3120 B
Boron	< 0.06 mg/L	N/A	SM 3120 B
Total Hardness (Ca+Mg) as CaCO ₃	6.88 grains/gallon	Moderate	SM 2340 B
Lime (as CaCO ₃)	417 lbs/acre-foot		SM 2340 B
SAR	0.5		FAO 29
SARadj	0.9		FAO 29
Salinity Hazard	LOW		FAO 29
Sodium Hazard, SAR	LOW		FAO 29
Sodium Hazard, SARadj	LOW		FAO 29

BacT Sterile Bottle: NO

* Date & Time Analyzed: 11/20/2017 @ 1223

* Nitrate-N plus Nitrite-N Reporting Limit = 0.20 mg/L

** Date & Time Started:

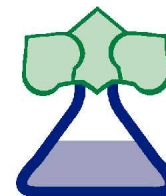
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WATER SAMPLE REPORT

UNL COOPERATIVE EXTENSION
PERKINS COUNTY
76025 RD 329
GRANT NE 69140

Account Number: 11580

Date & Time Sampled: 11/16/2017 @ 0000
Date & Time Received: 11/16/2017 @ 1200
Date Reported: 11/22/2017

Name: PERKINS CO
Sample ID: CN

Lab Number: 76193

Constituent Analyzed	Results	Drinking Water Guidelines	Analytical Method
pH	7.9 s.u.	6.5 -- 8.5	SM 4500 H B.
Electrical Conductivity	0.32 mmhos/cm	< 0.8	SM 2510 B
Total Dissolved Solids (calculated)	206 mg/L	< 500	SM 1030F
Carbonate	< 1 mg/L	N/A	SM 2320 B
Bicarbonate	213 mg/L	N/A	SM 2320 B
Alkalinity (as CaCO ₃)	175 mg/L	N/A	SM 2320 B
Calcium	42 mg/L	N/A	SM 3120 B
Magnesium	12 mg/L	N/A	SM 3120 B
Potassium	11 mg/L	N/A	SM 3120 B
Sodium	7 mg/L	N/A	SM 3120 B
Nitrate-N plus Nitrite-N *	2.61 mg/L	10 mg/L	Lachat 10-107-04-1.
Phosphorus (Total)	< 0.12 mg/L	N/A	SM 3120 B
Sulfur (Total)	4.90 mg/L	< 80	SM 3120 B
Chloride	3.00 mg/L	< 250	SM 4500 Cl E
Iron	0.03 mg/L	< 0.3	SM 3120 B
Manganese	0.02 mg/L	< 0.05	SM 3120 B
Zinc	0.03 mg/L	< 5.0	SM 3120 B
Copper	< 0.01 mg/L	1.3 mg/L	SM 3120 B
Boron	< 0.06 mg/L	N/A	SM 3120 B
Total Hardness (Ca+Mg) as CaCO ₃	9.01 grains/gallon	Hard	SM 2340 B
Lime (as CaCO ₃)	472 lbs/acre-foot		SM 2340 B
SAR	0.2		FAO 29
SARadj	0.5		FAO 29
Salinity Hazard	LOW		FAO 29
Sodium Hazard, SAR	LOW		FAO 29
Sodium Hazard, SARadj	LOW		FAO 29

BacT Sterile Bottle: NO

* Date & Time Analyzed: 11/20/2017 @ 1223

* Nitrate-N plus Nitrite-N Reporting Limit = 0.20 mg/L

** Date & Time Started:

BY: Electronically Approved by: Kevin Grooms