

NEBRASKA

Good Life. Great Resources.

DEPT. OF ENVIRONMENT AND ENERGY

U.S. Army Reserve
Attn: Edward Tebo
Environmental Division Chief
88th Readiness Division
Fort McCoy, WI 54656

RE: Sediment Pesticide Sampling
Facility ID: 84069
Program ID: NE0137634
Subject: Sediment Sampling Results

Dear Mr. Tebo:

The Nebraska Department of Environment and Energy (NDEE) is conducting sediment sampling near Mead, Nebraska related to an environmental investigation at the AltEn, LLC facility. On March 3, 2021, NDEE sampled the sediment from the unnamed tributary on your property. The NDEE appreciates your participation in this investigation.

Enclosed are the laboratory results for the sediment sample "21PE001505" collected from your property. The samples were tested for various pesticides associated with the seed treatment of field corn. The first column of the laboratory report identifies each chemical that was tested for. The third column provides the numeric results of the chemical in units of Parts Per Billion (ppb) which is also equivalent to micrograms per liter, or $\mu\text{g/L}$. A result followed by a result of "ND" indicates that the chemical was not detected.

A summary table is provided below.

Sediment Sample	Chemical	Results (ppb)
21PE001505	Azoxystrobin	<5
	Clothianidin	267
	Desthio-Prothioconazole	15.8
	Difenoconazole	<5
	Fluoxastrobin	31.4
	Imidacloprid	<5
	Ipconazole	16.5
	Prothioconazole	21.9
	Sulfonic Acid Prothioconazole	<5
	Tebuconazole	105
	Thiabendazole	152
	Thiamethoxam	35.3

<5 = chemical detected but can not be accurately quantified below the reporting limit of 5 ppb

The ecological aquatic life risk posed by the detected pesticides in the sediment is currently under evaluation. Further information will be provided upon completion of the evaluation.



Pete Ricketts, Governor

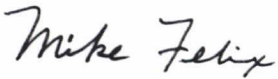


20210022173

Enclosed are the laboratory data and trip report. If you have any questions, please contact me or Zoe DeGrande at (402) 471-2186 or mike.felix@nebraska.gov or zoe.degrande@nebraska.gov.

Thank you again for your assistance.

Sincerely,

A handwritten signature in cursive script that reads "Mike Felix".

Mike Felix
Section Supervisor
Superfund/VCP Section
Monitoring and Remediation Division

Enclosures

Performed By:

South Dakota Agricultural Laboratories
1335 Western Avenue
Brookings, South Dakota 57006
Phone: 605-692-7325
E-Mail: regina.wixon@sdaglabs.com

Collected By:

Nebraska Dept. of Environment and Energy
PO Box 98922
Lincoln, NE 68509
Phone: 402-471-3377
E-Mail: wade.gregson@nebraska.gov

Report Date: 2021-04-01**Amended Report****South Dakota Agricultural Laboratories has examined the sample of**

Limfinite Package Id : 20210305-002
Lab Sample Id : 21PE001505
Customer Sample Id : Off-site Sediment
Sample Description : Sediment
Date Collected : 2021-03-03
Date Received : 2021-03-05
Cooler Temp :

RESULTS

ANALYTE	UNIT	AS RECEIVED	LOD	DETECTION LIMIT	METHOD	DATE OF EXTRACTION	DATE OF ANALYSIS
Abamectin	ppb	ND	3	10	LC-MS/MS	2021-03-16	2021-03-17
Acetamprid	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-11
Azoxystrobin	ppb	J1.17	1	5	LC-MS/MS	2021-03-10	2021-03-10
Brassinazole	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-10
Clothianidin	ppb	267	1	5	LC-MS/MS	2021-03-10	2021-03-11
Cyproconazole	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-10
Desthio-Prothioconazole	ppb	15.8	1	5	LC-MS/MS	2021-03-10	2021-03-10
Difenoconazole	ppb	J2.88	1	5	LC-MS/MS	2021-03-10	2021-03-10
Dimoxystrobin	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-10
Dinotefuran	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-11
Epoxiconazole	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-10
Fluconazole	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-10
Fluoxastrobin	ppb	31.4	1	5	LC-MS/MS	2021-03-10	2021-03-10
Glufosinate	ppb	ND	3	10	J. Agric. Food Chem. 34 535-538	2021-03-10	2021-03-16
Glyphosate	ppb	ND	3	10	J. Agric. Food Chem. 34 535-538	2021-03-24	2021-03-26
Imidacloprid	ppb	J2.02	1	5	LC-MS/MS	2021-03-10	2021-03-11
Iproconazole	ppb	16.5	1	5	LC-MS/MS	2021-03-10	2021-03-10
Isavuconazole	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-10
Metconazole	ppb	ND	1	5	LC-MS/MS	2021-03-18	2021-03-20
Nitenpyram	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-11
Orysastrobin	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-10
Picoxystrobin	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-10
Propiconazole	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-10
Prothioconazole	ppb	21.9	1	5	LC-MS/MS	2021-03-10	2021-03-10
Pyraclostrobin	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-10
Ravuconazole	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-10
Sulfonic Acid Prothioconazole	ppb	J3.10	1	5	LC-MS/MS	2021-03-18	2021-03-20
Tebuconazole	ppb	105	1	5	LC-MS/MS	2021-03-10	2021-03-10

Tetraconazole	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-10
Thiabendazole	ppb	152	1	5	LC-MS/MS	2021-03-10	2021-03-10
Thiacloprid	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-11
Thiamethoxam	ppb	35.3	1	5	LC-MS/MS	2021-03-10	2021-03-11
Trifloxystrobin	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-10
Uniconazole	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-10
Voriconazole	ppb	ND	1	5	LC-MS/MS	2021-03-10	2021-03-10

QUALITY ASSURANCE

ANALYTE	UNIT	DUPLICATE	SPIKE RECOVERY	MATRIX BLANK	PROCESS BLANK	INSTRUMENT BLANK
Abamectin	ppb	ND	77.1	ND	ND	ND
Acetamprid	ppb	ND	110	ND	ND	ND
Azoxystrobin	ppb	1.49j	108	ND	ND	ND
Brassinazole	ppb	ND	109	ND	ND	ND
Clothianidin	ppb	227	108	ND	ND	ND
Cyproconazole	ppb	ND	101	ND	ND	ND
Desthio-Prothioconazole	ppb	12.8	95.4	ND	ND	ND
Difenoconazole	ppb	2.80j	89.7	ND	ND	ND
Dimoxystrobin	ppb	ND	129	ND	ND	ND
Dinotefuran	ppb	ND	105	ND	ND	ND
Epoxiconazole	ppb	ND	104	ND	ND	ND
Fluconazole	ppb	ND	80.7	ND	ND	ND
Fluoxastrobin	ppb	31.4	111	ND	ND	ND
Glufosinate	ppb	ND	91.5	ND	ND	ND
Glyphosate	ppb	ND	127	ND	ND	ND
Imidacloprid	ppb	1.78j	113	ND	ND	ND
Ipconazole	ppb	14.5	102	ND	ND	ND
Isavuconazole	ppb	ND	99.3	ND	ND	ND
Metconazole	ppb	ND	105	ND	ND	ND
Nitenpyram	ppb	ND	91.4	ND	ND	ND
Orysastrobin	ppb	ND	105	ND	ND	ND
Picoxystrobin	ppb	ND	115	ND	ND	ND
Propiconazole	ppb	ND	96.0	ND	ND	ND
Prothioconazole	ppb	19.6	109	ND	ND	ND
Pyraclostrobin	ppb	ND	124	ND	ND	ND
Ravuconazole	ppb	ND	101	ND	ND	ND
Sulfonic Acid Prothioconazole	ppb	3.16j	128	ND	ND	ND
Tebuconazole	ppb	107	114	ND	ND	ND
Tetraconazole	ppb	ND	111	ND	ND	ND
Thiabendazole	ppb	164	91.0	ND	ND	ND
Thiacloprid	ppb	ND	115	ND	ND	ND
Thiamethoxam	ppb	37.2	116	ND	ND	ND
Trifloxystrobin	ppb	ND	120	ND	ND	ND
Uniconazole	ppb	ND	104	ND	ND	ND
Voriconazole	ppb	ND	102	ND	ND	ND

Comments:

Definitions:

ppb - parts per billion

Detection Limit - Lowest concentration that can be quantitatively reported with confidence

ND - Not Detected above the limit of quantification

Duplicate - Concentration found in repeat sample analysis

Spike Recovery - Recovery based on a known amount of active ingredient spiked into a similar-matrix, blank sample

Matrix Blank - A similar-matrix, blank sample is evaluated

Process Blank - A sample without any matrix (soil, vegetation etc) is processed through the sample analysis procedure

Instrument Blank - Injection solvent is run to demonstrate no carryover between injections on the instrument

Reviewed and approved by Regina Wixon, Ph.D.

Submitted by the customer:

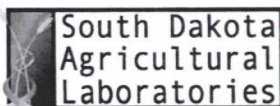
20210305-002

~~21NE001504-1505~~

2021-03-05 AM

21PE001504-1505

Chain of Custody



Agricultural and Analytical Testing

20210305-002
21PE001504-001505

South Dakota Agricultural Laboratories
1335 Western Ave
Brookings, SD 57006
PH 605-692-7325
Fax 605-692-7326
www.sdaglabs.com

Contact information									
Company / Organization:		NDEE		Address:		PO Box 98922 Lincoln, NE 68509			
Contact:		Wade Gregson		Email:		wade.gregson@nd.gov			
Phone:		402-471-3377		Special Instructions:					
Project Site / Sampling Event		off-site Ag chemical Screen							
Date of Sample Collection		2 and 3 March 2021							
Sample ID	Time Collected	Sample Media / Type	Number of Containers	Description / Notes	Azole Screen	Strobin Screen	Neonic Screen	OP Screen	Pre-Emergent Screen
off-site surface water 1730		WA 1504	1	2 Mar 2021	X	X	X	X	X
off-site sediment 1600		Sediment 1505	1	3 Mar 2021	X	X	X	X	X
				see attached spreadsheet					

Sample Type Codes	
VE - vegetation	CI - clothing
SO - soil	AN - animal
SW - swab	DDG - dried distiller's grains
WA - water	

Turn-around-times
Special charges apply for RUSH samples. Please contact the laboratory before sending.

Commercial Carrier	United Parcel Service	Sample(s) Received at SD Ag Labs
Date/Time Relinquished to Carrier	4 Mar 2021 / 1600	Date 2021-03-05
Number of Ice Chest(s) Shipped	1 (one)	Received by Alyssa Kennedy

Relinquished By	Date & Time	Received By	Date & Time
Kurt Dief	4 Mar 21 / 1600	Mumedy	2021-03-05 900am



EA Engineering, Science,
and Technology, Inc., PBC

221 Sun Valley Blvd, Suite D
Lincoln, NE 68528
Telephone: (402) 476-3766
www.eaest.com

Technical Memorandum

DATE: March 26, 2021

TO: Wade Gregson, Nebraska Department of Environment and Energy (NDEE)

FROM: Dan Bigbee

SUBJECT: Task Assignment TA-21-08A/B/C
Alt-En Ethanol Plant – Environmental Sampling Support
IIS Number: 84069, Program ID: Fast Track
Stream Composite Sampling

Project Description

EA Engineering, Science, and Technology, Inc., PBC (EA) provided Fast Track/On-Call Environmental Sampling Support associated with the Alt-En Ethanol Plant. EA collected a composite sample from a small stream that traverses a section of land owned by the U.S. Army Reserve 88th Readiness Division (Figure 1) that is bounded by County Road G on the north, County Road F on the south, County Road 6 on east and County Road 7 on the west side located in Saunders County, NE.

Data Collection

EA arrived at the site at 1430 hours to collect a composite sample on Wednesday March 3, 2021. The following activities were completed.

- Ms. Jennifer Allen with the U.S. Army Reserve 88th Readiness Division provided escort to access the Mead Local Training Area (LTA) where the stream is located.
- Met escort at west edge of property, reviewed sampling goals and safety for the field effort.
- A handheld submeter global positioning system (GPS) unit was preloaded with 10 sample points to aid in locating depositional areas.
- Navigated to stream bends using the handheld submeter GPS unit and investigated the area for a depositional area to collect an aliquot.
- At each sample point, an aliquot of approximately ½ cup of sediment was collected.
- Placed each aliquot in a stainless-steel bowl, mixed, and transferred to a zipper bag, labeled, and stored on ice.
- Actual sample points were surveyed using a handheld submeter GPS unit (Figure 1).
- Returned to Lincoln and place the sample in a freezer for preservation of the sample.
- On Thursday, March 4, 2021, the sample was placed in a shipping cooler with fresh ice, chain-of-custody, sealed, and shipped via overnight courier to South Dakota Agricultural Laboratories, Brookings, SD for analyses of agricultural chemicals.

Attachments

Attachments to this Technical Memorandum include:

- Photographic Log, and
- Collection Field Sheets.



Figure 1





Photographs



Photo 1. Overview of stream.



Photo 2. Stream segment.



Photo 3. Sample collection.



Photo 4. Sample aliquot.

DAILY QUALITY CONTROL REPORT

Project Manager: Dan BigbeeProject: Alt-En ON-SiteDate: 3 Mar 2021

S	M	T	W	TH	F	S
			X			

Weather	Bright Sun	Clear	Overcast	Rain	Snow
Temp	To 32	32-50	50-70 X	70-85	>85
Wind	Still	Moderate	High	Gusty	
Humidity	Dry X	Moderate	Humid		

NDEQ Personnel on Site: NoneContractors on Site: K. Dixon, M. Wollman w/ EA.Visitors on Site: Jennifer Allen US Army Contractor - Escort to access property.

Work Performed: _____

collected composite sediment from unnamed creek drainage.Drainage sampled from Hwy 66/Co. Rd 7 or West to Co. Road 6 on East Saunders Co., NE.10 - Aliquots collected, composited, sample collected and frozen, shipped to lab on 4 Mar 21.GPS sample points

Project: ALT-En off-site Date: 3 Mar 21

Quality Control Activities (including field calibration and duplicate samples collected): _____

None

Problems Encountered/Corrective Actions Taken: _____

None - Snow, Ice - Adjust sample location to access sediment.

Downtime/Standby: None

Health and Safety Activities: _____

None

Special Notes: _____

None

By: KDif Date: 3 Mar 2021

COLLECTION FIELD SHEET

Project Name Alt-En Off-Site
Sample Number off-site Sediment
Name and Address of Property Owner US Army 88th Readiness Division.
Sample Location Drainage Ditch Saunders, Co Between County Road 7 and 6.
Sample Media Sediment Sample Depth Surface - 0-2"
Well I.D. NA
Date Collected 3 Nov 21 Time Collected 1600 - 1700 hrs
Sampling Personnel K Dixon, M. Wallman - EA
Sample QC Duplicate: Yes ☒ No ☐ Duplicate Sample No. NA

Field Measurements

Photo Ionization Detector Measurements: NApH NA Conductivity NA Temperature NA

Container	Sample Type	Preservative	Analysis Requested
1-Liter HD			
1 qt Zipper bag		Frozen	Pesticide screens

Comments:

10 - subsamples collected, composited and sampled.

Site Sketch Showing Sampling Location:

