

# ADEQ

ARKANSAS  
Department of Environmental Quality

July 1, 2019

Mr. Daniel Dawson, General Manager  
Searcy Board of Public Utilities  
P.O. Box 1319  
Searcy, AR 72145

RE: Searcy WWTP Inspection  
AFIN: 73-00055 Permit No.: AR0021601

Dear Mr. Dawson:

On May 7, 2019, I performed a Compliance Evaluation Inspection and a Sanitary Sewer Overflow/Collection System Evaluation of the above referenced facility in accordance with the provisions of the Federal Clean Water Act, the Arkansas Water and Air Pollution Control Act, and the regulations promulgated thereunder. A copy of the inspection report is enclosed for your records.


No violations were noted at the time of the inspection. However, please refer to the "Summary of Findings" section of the attached inspection report and provide information pertaining to the land application of sludge. This response should be mailed to the attention of the Office of Water Quality Compliance Branch at the address at the bottom of this letter or e-mailed to [Water-Inspection-Report@adeq.state.ar.us](mailto:Water-Inspection-Report@adeq.state.ar.us). Please submit the written response with all necessary documentation (i.e. photos) is due by **July 15, 2019**.

If I can be of any assistance, please contact me at [Bolenbaugh@adeq.state.ar.us](mailto:Bolenbaugh@adeq.state.ar.us) or 501-682-0659.

Sincerely,




Jason Bolenbaugh  
Compliance Branch Manager  
Office of Water Quality

 <b>A R K A N S A S</b> Department of Environmental Quality	<b>WATER DIVISION INSPECTION REPORT</b>				
	AFIN: <b>73-00055</b>	PERMIT #: <b>AR0021601</b>	DATE: <b>5/7/2019</b>		
	COUNTY: <b>73 White</b>	PDS #: <b>108385</b>	MEDIA: <b>WN</b>		
	GPS LAT: <b>35.268216</b> LONG: <b>-91.716081</b> LOCATION: <b>Entrance</b>				
<b>FACILITY INFORMATION</b>		<b>INSPECTION INFORMATION</b>			
NAME: <b>Searcy WWTP</b> LOCATION: <b>260 North Bypass Rd.</b> CITY: <b>Searcy</b>		FACILITY TYPE: <b>1 - Municipal</b> INSPECTOR ID#: <b>83321 S - State</b> FACILITY EVALUATION RATING: <b>***</b> INSPECTION TYPE: <b>Compliance Evaluation</b>			
<b>RESPONSIBLE OFFICIAL</b>		DATE(S):      ENTRY TIME:      EXIT TIME:      PERMIT EFFECTIVE DATE: <b>5/7/2019</b> <b>09:00</b> <b>12:00</b> <b>5/1/2019</b> PERMIT EXPIRATION DATE: <b>4/30/2024</b>			
NAME / TITLE: <b>Mr. Daniel Dawson / General Manager</b> COMPANY: <b>Searcy Board of Public Utilities</b> MAILING ADDRESS: <b>P.O. Box 1319</b> CITY, STATE, ZIP: <b>Searcy AR 72145</b> PHONE & EXT. / FAX: <b>501-268-2481 /</b> EMAIL: <b>d.dawson@cablelynx.com</b>		FAYETTEVILLE SHALE RELATED: <b>N</b> FAYETTEVILLE SHALE VIOLATIONS: <b>N</b>			
CONTACTED DURING INSPECTION: <b>No</b>		<b>INSPECTION PARTICIPANTS</b>			
		NAME/TITLE/PHONE/FAX/EMAIL/ETC.: <b>Mr. Jimmy Smith, Plant Manager</b> <b>Mr. Spencer Oyemaja, Pretreatment Coordinator</b>			
<b>AREA EVALUATIONS</b>					
(S=Satisfactory, M=Marginal, U=Unsatisfactory, N=Not Applicable/Evaluated)					
<b>S</b>	PERMIT	<b>S</b>	FLOW MEASUREMENT	<b>N</b>	STORMWATER
<b>S</b>	RECORDS/REPORTS	<b>S</b>	LABORATORY	<b>S</b>	FACILITY SITE REVIEW
<b>S</b>	OPERATION & MAINTENANCE	<b>S</b>	EFFLUENT/RECEIVING WATER	<b>S</b>	SELF-MONITORING PROGRAM
<b>S</b>	SAMPLING	<b>N</b>	SLUDGE HANDLING/DISPOSAL	<b>N</b>	PRETREATMENT
<b>**</b>	OTHER:				
<b>SUMMARY OF FINDINGS</b>					
<ul style="list-style-type: none"> <li>The most recent renewal application indicates the permittee maintains land application permit 4605-WR-1, however, that permit was voided on October 28, 2011. During the inspection it was noted sludge was removed from October 2015 to June 2016 and land applied by a contractor but it was unknown where the sludge was land applied and under what permit it was land applied. Please provide the name and permit number of the individual responsible for land applying the sludge at that time.</li> </ul>					

**GENERAL COMMENTS**

- Only 4 effluent limitation violations have occurred at the treatment plant from January 1, 2016.
- The equalization basin (EQ) is located east of the treatment plant on the east side of Davis Drive. During periods of high flow wastewater and stormwater will flow from the wet well into the basin. If wastewater and/or stormwater in the main pump station rises to stainless steel floats it will cause the pumping to the treatment plant to slow so the influent channel does become overwhelmed and overflow. The main pump station has a transducer that will trigger the pump station to route flows to the EQ basin. The plant can handle approximately 11 MGD for a short time. Once flows decrease the EQ basin water will gravity flow back into the wet well for processing through the treatment plant.
- The design flow for the treatment plant is 5.0 MGD. From January 2016 to February 2019, the treatment plant reported daily maximum flows within a reporting month that exceeded the design flow 30 times. The highest daily maximum flow reported was 11.51 MGD in February 2019. The highest monthly average flow reported during this time was 6.89 MGD in December 2018. The city is currently working on a sewer system evaluation that will help decrease stormwater flows to the treatment plant.
- The old oxidation pond noted in an April 17, 2009 letter now serves as the fishing pond and no sewer is diverted to it. The pond has two spillways, one on the south end and one on the east side. At the time of the inspection the south end spillway was discharging.
- The treatment plant has two backup generators and the main pumps are on SCADA. The collection system and its operations are not operated by the treatment plant staff. A separate Sanitary Sewer Overflow/Collection System Evaluation was also completed following this inspection.
- A Pretreatment Compliance Inspection was also completed in February 2019. The Department appreciates cooperativeness of all staff involved in the PCI and this inspection.

INSPECTOR'S SIGNATURE:	←Click text to left to add signature	<b>-Inspector Name</b>	DATE:
SUPERVISOR'S SIGNATURE:	 <b>Jason Bolenbaugh</b>		DATE: <b>6/28/2019</b>

<b>SECTION A: PERMIT VERIFICATION</b>	
PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
DETAILS:	
1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE: <b>Searcy Water Utilities, PO Box 1319, Searcy, AR 72145</b>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES:	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT: <b>Outfall 001 Location: 35.270093, -91.707665</b>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
4. ALL DISCHARGES ARE PERMITTED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
<b>SECTION B: RECORDKEEPING AND REPORTING EVALUATION</b>	
RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
DETAILS: <b>Requested copies for February, May, August, and November 2018</b>	
1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRS:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE:	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
a. DATES AND TIME(S) OF SAMPLING:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
b. EXACT LOCATION(S) OF SAMPLING:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
c. NAME OF INDIVIDUAL PERFORMING SAMPLING:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
d. ANALYTICAL METHODS AND TECHNIQUES:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
e. RESULTS OF CALIBRATIONS:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
f. RESULTS OF ANALYSES:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
g. DATES AND TIMES OF ANALYSES:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
h. NAME OF PERSON(S) PERFORMING ANALYSES: <b>Spencer Oyemaja, Lisa Alexander (Laboratory Technician), Arkansas Testing Lab</b>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE:	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR:	<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
<b>SECTION C: OPERATIONS AND MAINTENANCE</b>	
TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
DETAILS:	
1. TREATMENT UNITS PROPERLY OPERATED:	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
2. TREATMENT UNITS PROPERLY MAINTAINED:	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED: <b>2 backup generators on site (355 and 465 horsepower each)</b>	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE: <b>Chlorine notification alarms and sulfur dioxide detectors are in place. Emergency protocols are in place with the Fire Department and Emergency Planning Committee.</b>	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
5. ALL NEEDED TREATMENT UNITS IN SERVICE:	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED: <b>8 staff and 7 are licensed Class III or Class IV operators</b>	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED: <b>Backup storm pumps, extra thickener motor, other.</b>	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE:	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE
9. STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
10. PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
11. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
12. IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
13. HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
14. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT: <b>Not within the last year. Last one was reported during previous Compliance Evaluation Inspection.</b>	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
15. IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT:	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE



<b>SECTION D: SAMPLING</b>	
PERMITTEE SAMPLING MEETS PERMIT REQUIREMENTS	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
<b>DETAILS: Hach Sigma 900 maintained at &lt; 5°C (Composite Sampler).</b>	
1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT: <b>Samples are taken at the composite sampler prior to the outfall. The outfall is located at the Little Red River and was submerged at the time of the inspection.</b>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT:	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
6. SAMPLE COLLECTION PROCEDURES ADEQUATE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
a. SAMPLES REFRIGERATED DURING COMPOSITING:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
b. PROPER PRESERVATION TECHNIQUES USED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
c. CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
7. IF MONITORING IS PERFORMED MORE OFTEN THAN REQUIRED ARE RESULTS REPORTED ON THE DMR:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
<b>SECTION E: FLOW MEASUREMENT</b>	
PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
<b>DETAILS:</b>	
1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED: <b>2' Parshall Flume</b>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
3. SECONDARY INSTRUMENTS ( <b>TOTALIZERS</b> , RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
4. CALIBRATION FREQUENCY ADEQUATE: <b>Totalizer last calibrated on February 1, 2019. Calibration checks completed regularly.</b>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
5. RECORDS MAINTAINED OF CALIBRATION PROCEDURES:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
6. CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
7. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
8. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
9. HEAD MEASURED AT PROPER LOCATION:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
<b>SECTION F: LABORATORY</b>	
PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
<b>DETAILS:</b>	
1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(B) FOR SLUDGES) :	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED:	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE
3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT: <b>Records provided</b>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
4. QUALITY CONTROL PROCEDURES ADEQUATE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
5. DUPLICATE SAMPLES ARE ANALYZED $\geq$ 10% OF THE TIME: <b>FCB duplicated every time</b>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
6. SPIKED SAMPLES ARE ANALYZED $\geq$ 10% OF THE TIME:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
7. COMMERCIAL LABORATORY USED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
a. LAB NAME: <b>American Interplex Whole Effluent Toxicity (WET) Only / Arkansas Testing Laboratories</b>	
b. LAB ADDRESS:	
c. PARAMETERS PERFORMED: <b>WET / NH<sub>3</sub>-N, TP, NO<sub>3</sub>+NO<sub>2</sub>-N</b>	
8. BIOMONITORING PROCEDURES ADEQUATE: <b>Frequency is once/quarter</b>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
a. PROPER ORGANISMS USED: <b>Ceriodaphnia dubia (water flea) and Pimephales promelas (fathead minnow)</b>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
b. PROPER DILUTION SERIES FOLLOWED: <b>8%, 11%, 15%, 20% (Critical Dilution), and 27%</b>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
c. PROPER TEST METHODS AND DURATION: <b>EPA-821-R-02-013</b>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
d. RETESTS AND/OR TRE PERFORMED AS REQUIRED:	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE

<b>SECTION G: EFFLUENT/RECEIVING WATERS OBSERVATIONS</b>							
<b>BASED ON VISUAL OBSERVATIONS ONLY</b>						<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE	
<b>DETAILS: Discharge at outfall was clear with small minnows congregating within the discharge.</b>							
OUTFALL #:	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOATING SOLIDS	COLOR	OTHER
001	None	None	None	None	None	None	--
<b>SECTION H: SLUDGE DISPOSAL</b>							
<b>SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS</b>						<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE	
<b>DETAILS: Sludge was removed in October 2015 to June 2016. In March 2018 the sludge depth was 9 feet.</b>							
1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY:						<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE	
2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503: Requested documentation for 10/2015 - 6/2016.						<input type="checkbox"/> S <input checked="" type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE	
3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: (E.G., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE):							
<b>Belt Press sludge is sent to American Composting located at 11911 Faulkner Lake Road, North Little Rock, AR 72117.</b>							
<b>SECTION I: SAMPLING INSPECTION PROCEDURES</b>							
<b>SAMPLE RESULTS WITHIN PERMIT REQUIREMENTS</b>						<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
<b>DETAILS:</b>							
1. SAMPLES OBTAINED THIS INSPECTION:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
2. TYPE OF SAMPLE: <input type="checkbox"/> GRAB:___ <input type="checkbox"/> COMPOSITE:___ METHOD:___ FREQUENCY:___							
3. SAMPLES PRESERVED:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
4. FLOW PROPORTIONED SAMPLES OBTAINED:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
6. SAMPLE REPRESENTATIVE OF VOLUME AND NATURE OF DISCHARGE:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
7. SAMPLE SPLIT WITH PERMITTEE:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
<b>SECTION J: STORM WATER POLLUTION PREVENTION PLAN</b>							
<b>STORM WATER MANAGEMENT MEETS PERMIT REQUIREMENTS</b>						<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
<b>DETAILS: City was in compliance with their IGP No-Exposure Exclusion (ARR00C389). A separate inspection report was completed for the IGP.</b>							
1. SWPPP UPDATED AS NEEDED:___ DATE OF LAST UPDATE:___						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
2. SITE MAP INCLUDING ALL DISCHARGES AND SURFACE WATERS:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
3. POLLUTION PREVENTION TEAM IDENTIFIED:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
4. POLLUTION PREVENTION TEAM PROPERLY TRAINED:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
5. LIST OF POTENTIAL POLLUTANT SOURCES:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
6. LIST OF POTENTIAL SOURCES AND PAST SPILLS AND LEAKS:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
7. ALL NON-STORM WATER DISCHARGES ARE AUTHORIZED:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
8. LIST OF STRUCTURAL BMPS:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
9. LIST OF NON-STRUCTURAL BMPS:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
10. BMPS PROPERLY OPERATED AND MAINTAINED:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
11. INSPECTIONS CONDUCTED AS REQUIRED:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	

**FLOW CALCULATION SHEET**

Date: **5/7/2019** Time: **11:18**

Head in Inches:                      Feet: **1.09**

Type & Size of Primary Flow Measurement Device: **2' Parshall Flume**

Name & Model of Secondary Flow Measurement Device: **Siemens Milltronics OCM III**

Date of last Calibration of Secondary Flow Device: **2/1/2019 by OIC Inc.**

Recorded Flow at Date & Time Listed Above: **5.54 MGD** (Facility Flow Meter)

Calculated Flow at Date & Time Listed Above: **5.909 MGD**

(Flow is calculated using flow charts in: ISCO Open Channel Flow Measurement Handbook-5<sup>th</sup> Edition)

% Error =	Recorded Value	-	Calculated Value	X 100	
	Calculated Value				

% Error =	5.54	-	5.909	X 100	
	5.909				

% Error =	-0.369	X 100	
	5.909		

% Error =	-0.0624	X 100	
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% Error =	<b>-6.24</b>	%	
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Comments: **Calibration check is within ±10% as required in Part III, Section C, Condition 2 of the permit.**



**Water Division Photographic Evidence Sheet**

Location:	<b>Searcy WWTP</b>		
Photographer:	<b>Jason Bolenbaugh</b>	Date:	<b>5/7/2019</b>
Witness:		Time:	<b>10:34</b>
		Photo #:	<b>1</b>
Description:	<b>Wet well at the main pump station that send wastewater to the plant or EQ basin.</b>		



Photographer:	<b>Jason Bolenbaugh</b>	Date:	<b>5/7/2019</b>
Witness:		Time:	<b>10:40</b>
		Photo #:	<b>2</b>
Description:	<b>What is now considered the fishing pond that is discharging on the south end.</b>		





**Water Division Photographic Evidence Sheet**

Location:	<b>Searcy WWTP</b>		
Photographer:	<b>Jason Bolenbaugh</b>	Date:	<b>5/7/2019</b>
Witness:		Time:	<b>10:48</b>
		Photo #:	<b>3</b>
Description:	<b>Belt press maintained inside. Belt press runs about 4 hours/day Area was well maintained.</b>		



Photographer:	<b>Jason Bolenbaugh</b>	Date:	<b>5/7/2019</b>
Witness:		Time:	<b>10:52</b>
		Photo #:	<b>4</b>
Description:	<b>Waste truck (under cover) that delivers sludge to American Composting.</b>		





**Water Division Photographic Evidence Sheet**

Location:	<b>Searcy WWTP</b>		
Photographer:	<b>Jason Bolenbaugh</b>	Date:	<b>5/7/2019</b>
Witness:		Time:	<b>10:53</b>
		Photo #:	<b>5</b>
Description:	<b>Influent channel.</b>		



Photographer:	<b>Jason Bolenbaugh</b>	Date:	<b>5/7/2019</b>
Witness:		Time:	<b>10:56</b>
		Photo #:	<b>6</b>
Description:	<b>Bar screen.</b>		





**Water Division Photographic Evidence Sheet**

Location:	<b>Searcy WWTP</b>		
Photographer:	<b>Jason Bolenbaugh</b>	Date:	<b>5/7/2019</b>
Witness:		Time:	<b>10:58</b>
		Photo #:	<b>7</b>
Description:	<b>Bar screen waste being properly handled and disposed.</b>		



Photographer:	<b>Jason Bolenbaugh</b>	Date:	<b>5/7/2019</b>
Witness:		Time:	<b>10:58</b>
		Photo #:	<b>8</b>
Description:	<b>Influent composite sampler.</b>		





**Water Division Photographic Evidence Sheet**

Location:	<b>Searcy WWTP</b>		
Photographer:	<b>Jason Bolenbaugh</b>	Date:	<b>5/7/2019</b>
Witness:		Time:	<b>10:59</b>
		Photo #:	<b>9</b>
Description:	<b>Primary Clarifier.</b>		



Photographer:	<b>Jason Bolenbaugh</b>	Date:	<b>5/7/2019</b>
Witness:		Time:	<b>11:04</b>
		Photo #:	<b>10</b>
Description:	<b>One of four aeration basins.</b>		



**Water Division Photographic Evidence Sheet**

Location:	<b>Searcy WWTP</b>		
Photographer:	<b>Jason Bolenbaugh</b>	Date:	<b>5/7/2019</b>
Witness:		Time:	<b>11:06</b>
		Photo #:	<b>11</b>
Description:	<b>One of two secondary clarifiers.</b>		



Photographer:	<b>Jason Bolenbaugh</b>	Date:	<b>5/7/2019</b>
Witness:		Time:	<b>11:07</b>
		Photo #:	<b>12</b>
Description:	<b>Secondary clarifier with only very minor algae buildup.</b>		





**Water Division Photographic Evidence Sheet**

Location:	<b>Searcy WWTP</b>		
Photographer:	<b>Jason Bolenbaugh</b>	Date:	<b>5/7/2019</b>
Witness:		Time:	<b>11:14</b>
		Photo #:	<b>13</b>
Description:	<b>2' Parshall Flume</b>		



Photographer:	<b>Jason Bolenbaugh</b>	Date:	<b>5/7/2019</b>
Witness:		Time:	<b>11:15</b>
		Photo #:	<b>14</b>
Description:	<b>Primary measuring device reading 1.09' of Head or approximately 5.909 MGD.</b>		



**Water Division Photographic Evidence Sheet**

Location:	<b>Searcy WWTP</b>		
Photographer:	<b>Jason Bolenbaugh</b>	Date:	<b>5/7/2019</b>
Witness:		Time:	<b>11:18</b>
		Photo #:	<b>15</b>
Description:	<b>Effluent totalizing meter reading 5.54 MGD.</b>		



Photographer:	<b>Jason Bolenbaugh</b>	Date:	<b>5/7/2019</b>
Witness:		Time:	<b>11:27</b>
		Photo #:	<b>16</b>
Description:	<b>Composite sampler refrigerated at &lt;5 degrees Celsius.</b>		





**Water Division Photographic Evidence Sheet**

Location:	<b>Searcy WWTP</b>		
Photographer:	<b>Jason Bolenbaugh</b>	Date:	<b>5/7/2019</b>
Witness:		Time:	<b>11:43</b>
		Photo #:	<b>17</b>
Description:	<b>Plant effluent with minnows swimming directly in the discharge. The effluent discharge is displacing the more turbid water of the Little Red River.</b>		



## McConnell, Melissa

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**From:** Bolenbaugh, Jason  
**Sent:** Monday, July 22, 2019 7:20 AM  
**To:** McConnell, Melissa  
**Subject:** FW: 2015 & 2016 Land Application Projects-Searcy  
**Attachments:** ADEQ Permit 5243-W\_White Co Biosolids.pdf; Nebo\_White County Biosolids Land List.pdf; 2015 ADEQ Annual Report 5243-W\_White County-signed.pdf; 2016 Annual Report 5243-W White County.pdf

Melissa,

Please attach this email and the attachments to PDS 108385.

Thanks,

### Jason Bolenbaugh

ADEQ Compliance Branch Manager  
Office of Water Quality  
[bolenbaugh@adeq.state.ar.us](mailto:bolenbaugh@adeq.state.ar.us)  
Office Phone: 501-682-0659  
Fax: 501-682-0880

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**From:** Jimmy Smith [<mailto:jsmith67@cablelynx.com>]  
**Sent:** Friday, July 19, 2019 10:21 AM  
**To:** Bolenbaugh, Jason  
**Subject:** FW: 2015 & 2016 Land Application Projects-Searcy

See attached for the information on the sludge cleanout we have been discussing. I can still mail paper copies to you if need be. We have made paper copies and put them in with our sludge records.

Thank you,

Jimmy Smith  
Manager  
Wastewater Treatment Plant  
501-268-1679



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**From:** Billy Staton [<mailto:billycstaton@outlook.com>]  
**Sent:** Wednesday, July 17, 2019 8:54 AM  
**To:** [jsmith67@cablelynx.com](mailto:jsmith67@cablelynx.com)  
**Cc:** [bosmith7@yahoo.com](mailto:bosmith7@yahoo.com)  
**Subject:** 2015 & 2016 Land Application Projects-Searcy

Jimmy,

Attached is the information for the 2015 & 2016 land application projects Nebo completed. This should be everything, but if you need more information please let me know.

Thanks,  
Billy Staton  
479-264-9147

Permit No. 5243-W  
AFIN 73-01260

**AUTHORIZATION FOR A NO-DISCHARGE WATER PERMIT UNDER THE  
ARKANSAS WATER AND AIR POLLUTION CONTROL ACT**

In accordance with the provisions of the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. Sec. 8-4-101 *et seq.*)

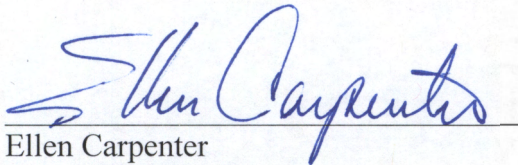
**Nebo Services, Inc. - White County**

is authorized to land apply municipal biosolids on sites listed in Condition No. 6 of Part II of the permit at P.O. Box 981 Russellville, AR 72811 in White County, AR.

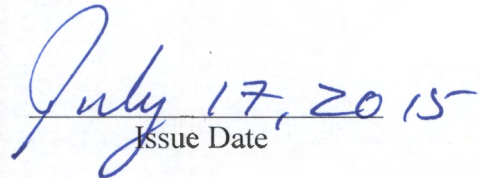
Operation shall be in accordance with all conditions set forth in this permit.

Effective Date: August 1, 2015

Expiration Date: July 31, 2020



Ellen Carpenter  
Chief, Water Division  
Arkansas Department of Environmental Quality



Issue Date



**Part I**  
**PERMIT REQUIREMENTS**

**LIMITATIONS AND MONITORING REQUIREMENTS:**

The following tables detail the constituent limits, monitoring frequencies, and the requirements for reporting results to ADEQ for each respective parameter listed in the table heading.

TABLE I			
Biosolids Analysis, Reporting, and Record Keeping			
Parameter	Ceiling Concentrations (mg/kg) <sup>1</sup>	Cumulative Pollutant Loading Rate (lb/ac) <sup>5</sup>	Monitoring Frequency
Arsenic	75	37	Once per 60 days
Cadmium	85	35	
Copper	4300	1350	
Lead	840	270	
Mercury	57	15	
Molybdenum	75	Report	
Nickel	420	378	
Selenium	100	90	
Zinc	7500	2520	
Polychlorinated Biphenyls (PCB's)	50	N/A	
Parameter	Maximum Limit	Reporting Units	Monitoring Frequency
Total Solids	Report	Percentage (%)	Annually, prior to the 1 <sup>st</sup> application of the calendar year per waste stream <sup>4</sup>
pH		S.U.	
Nitrate Nitrogen		mg/kg <sup>1</sup>	
Nitrite Nitrogen			
Ammonia Nitrogen			
Total Kjeldahl Nitrogen			
Total Phosphorus			
Total Potassium			
Sodium Absorption Ratio (SAR)	18	Unitless	
Total Volume of Waste Applied	Report	Dry tons/acre/year	Prior to each application
Nitrogen Application Rate	<sup>2,3</sup> Depends on Crop	lbs N/acre/year	

<sup>1</sup> Dry-weight Basis

<sup>2</sup> The land application of waste must not exceed the limits for Nitrogen Application Rate or Total Volume of Waste Applied, whichever is less.

<sup>3</sup> Refer to Condition No. 3 of Part II of the permit.

<sup>4</sup> When land applying waste from multiple waste streams, the waste analysis and volume applied from each waste stream must be used to calculate the loading rate and application rates.

<sup>5</sup> Refer to Condition No. 5 of Part II of the permit.

TABLE II		
Soils Analysis, Reporting, and Record Keeping		
Parameter	Limit (Reporting Units)	Monitoring Frequency
Electrical Conductivity	4.0 (mmhos/cm)	Annually, Prior to the 1 <sup>st</sup> application of the calendar year per application site
Cation Exchange Capacity	Report (meq/100g)	
pH <sup>1</sup>	Report (s.u.)	
Sodium Adsorption Ratio (SAR)	12 (unitless)	
Nitrate-Nitrogen	Report (mg/kg)	Once every five (5) years per application site
Phosphorus		
Potassium		
Arsenic		
Cadmium		
Copper		
Lead		
Mercury		
Molybdenum		
Nickel		
Selenium		
Zinc		

<sup>1</sup> If the resulting pH is 5.7 or lower, lime must be applied in accordance with the University of Arkansas Cooperative Extension Service.



**Part II  
 Specific Conditions**

1. This permit is for the land application of municipal biosolids.
2. The land application operation shall be managed in accordance with the March 11, 2015 Waste Management Plan (WMP). If the WMP is inconsistent with this permit, the land application operation shall be managed in accordance with the terms of the permit and the WMP shall be revised to conform to the permit conditions.
3. Plant Available Nitrogen (PAN) shall be calculated using the following equations:

PAN Equations	
For Surface applied biosolids, PAN(mg/kg)	$0.3(\text{TKN} - \text{NH}_3) + 0.5\text{NH}_3 + \text{NO}_3 + \text{NO}_2$
For Subsurface applied or Incorporated biosolids, PAN(mg/kg)	$0.3(\text{TKN} - \text{NH}_3) + \text{NH}_3 + \text{NO}_3 + \text{NO}_2$
Conversion from PAN(mg/kg) to PAN(lbs/Dry Ton(DT))	$0.002 * \text{PAN(mg/kg)}$

The biosolids must be applied at a rate (calculated in units of DT/acre) that provides a quantity of PAN (lbs N/acre) that is equal to or less than the nitrogen uptake rate of the cover crop (lbs/acre). See the table below for a list of Nitrogen uptakes for crops authorized for land application under this permit. Any crop not listed in the following table may be added to the permit as a permit modification.

Nitrogen Uptake of Cover Crops			
Crop Name	Uptake (lbs/acre)	Crop Name	Uptake (lbs/acre)
Barley	59	Rye	50
Soybeans	226	Sorghum	148
Corn	240	Wheat	70
Oats	75	Bermuda	300
Rice	124	Fescue	138

4. Land application sites shall maintain adequate vegetation to ensure the nitrogen uptake rate of the cover crop used to calculate the limit in Condition No. 3 is accurate. Land application sites containing forage crops shall maintain 100% coverage with minimum of 80% density. Land application site containing row crops shall be planted in a manner to produce a typical yield.
5. Cumulative Pollutant Loading Rate shall be calculated using the following equation:

$$\frac{\text{Pounds}}{\text{Acre}} = \text{Concentrations} \left( \frac{\text{mg}}{\text{kg}} \right) * 0.002 * \text{Application Rate} \left( \frac{\text{DT}}{\text{acre}} \right)$$

6. Land application sites are as follows:

Field ID	Owner	Section	Township	Range	Acreage	Latitude	Longitude
DM-1	Delbert Miesen	15	8 North	6 West	56.75	35° 19' 04" N	91° 38' 27" W
DM-2	Delbert Miesen	15	8 North	6 West	52.74	35° 19' 20" N	91° 38' 13" W
DM-3	Delbert Miesen	10	8 North	6 West	84.49	35° 19' 48" N	91° 38' 20" W
DM-4	Delbert Miesen	9	8 North	6 West	44.72	35° 19' 59" N	91° 38' 43" W
DM-5	Delbert Miesen	9	8 North	6 West	28.00	35° 20' 10" N	91° 39' 09" W
RR-1	Robyn Roach	21	8 North	6 West	32.85	35° 18' 36" N	91° 38' 58" W
RR-2	Robyn Roach	21	8 North	6 West	35.67	35° 18' 29" N	91° 38' 46" W
RR-3	Robyn Roach	22	8 North	6 West	55.68	35° 18' 38" N	91° 38' 21" W
RR-4	Robyn Roach	16	8 North	6 West	16.42	35° 18' 52" N	91° 39' 30" W
BW-1	Robert Wright	4	8 North	6 West	32.49	35° 20' 58" N	91° 38' 43" W
GR-1	Glen Reed	34	9 North	6 West	39.20	35° 22' 00" N	91° 38' 04" W
RW-1	Ronald Wools	34	9 North	6 West	31.43	35° 21' 36" N	91° 37' 58" W
DMc-1	Donald McAdams	34	9 North	6 West	38.66	35° 22' 03" N	91° 38' 19" W

- Each land use agreement must be maintained in effect during the permit term. A copy of the signed land use agreement must be available on site during land application operations. If a land use agreement becomes void during the permit term, the permittee must notify the Department for a modification of the permit.
- The permittee shall determine if the land application sites are currently permitted or in use by another user. In the event that the Department determines that any land application site under this permit is permitted for land application under another Water Division permit, the Department may void this permit and enforcement action may be taken.
- Biosolids shall be land applied by subsoil injection or surface applied. Surface applied biosolids must be evenly distributed over the entire application area. Incorporated biosolids shall be incorporated into the soil within 24-hours of application.
- Waste shall not be discharged from this operation to the waters of the State or onto the land in any manner that may result in runoff to the waters of the State.
- The allowable slope of land application site depends on waste application method. Wastes authorized by Condition 1 of Part II shall not be applied to the land application site with slopes greater than allowed by the table below.

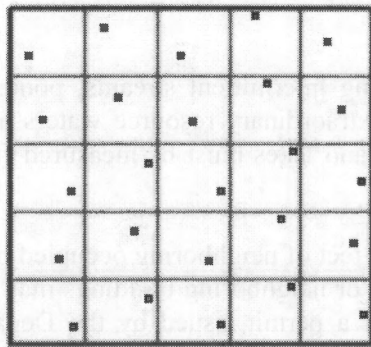
Maximum Slope %	Acceptable Application
6	<ul style="list-style-type: none"> <li>• Surface application of liquid waste</li> <li>• Injection of liquid waste</li> <li>• Surface application of dewatered waste solids</li> <li>• Surface application of dewatered waste with immediate incorporation</li> </ul>
12	<ul style="list-style-type: none"> <li>• Injection of liquid waste</li> <li>• Surface application of dewatered waste solids</li> <li>• Surface application of dewatered waste with immediate incorporation</li> </ul>
15	<ul style="list-style-type: none"> <li>• No application of liquid wastes without extensive runoff control</li> <li>• Surface application of dewatered waste with immediate incorporation</li> </ul>

- Land application is prohibited when the soils are saturated; frozen; covered with ice or snow; during precipitation events; or when precipitation is imminent (greater than a 50% chance of precipitation predicted by the nearest National Weather Service station) within a 24-hour period.

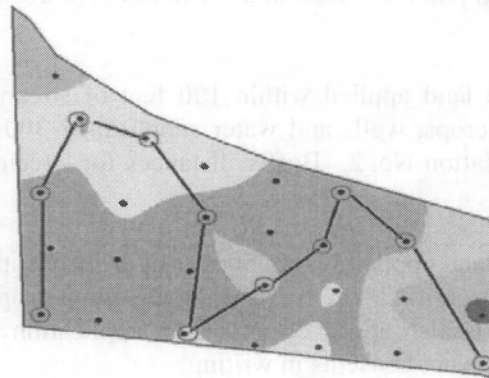


13. The permittee shall not cause or contribute to the taking of any endangered or threatened species of plant, fish or wildlife. The facility shall not result in the destruction or adverse modification of the known critical habitat of endangered or threatened species as identified in 50 C.F.R. Part 17.
14. Application of waste in a flood plain shall not restrict the flow of the base flood, reduce the temporary storage capacity of the flood plain, or result in a washout of solid waste, so as to pose a hazard to human life, wildlife, or land and water uses.
15. Waste shall not be land applied within 100 feet of streams including intermittent streams, ponds, lakes, springs, sinkholes, rock outcrops, wells and water supplies; or 300 feet of extraordinary resource waters as defined by the Department's Regulation No. 2. Buffer distances for streams, ponds and lakes must be measured from the ordinary high water mark.
16. Waste shall not be land applied within 50 feet of property lines or 300 feet of neighboring occupied buildings existing as of the date of the permit. The restrictions regarding property lines or neighboring buildings may be waived if the adjoining property is also approved as a land application site under a permit issued by the Department or if the adjoining property owner consents in writing.
17. All boundaries, cited in Conditions 15 and 16 of Part II of the Permit, must be flagged prior to land applying
18. The biosolids generator must issue a signed certification stating that the Pathogen Reduction, Vector Attraction Reduction, and Pollutant Concentration Limits have been met. The State requirements on Pathogen Reduction, Vector Attraction Reduction, and Pollutant Concentration Limits are the same as those listed in 40 C.F.R. Part 503.32. All the above information must be made available to the land-applicator before the biosolids materials are delivered. Concurrently, a signed copy of each certification must be also submitted to the ADEQ Water Division with the annual reports.
19. Biosolids can only be stored in accordance with the permit and the approved waste management plan, if provisions are made in the plan for that purpose. The utilization of improvised field storage sites or any other site not approved by the Department is prohibited. Transportation of the biosolids must be such that will prevent the attraction, harborage or breeding of insects or rodents.
20. The containers used for the transportation of the biosolids must be of the closed type. Transportation equipment must be leak-proof and kept in sanitary condition at all times. Biosolids must be enclosed or covered as to prevent littering, vector attraction, or any other nuisances.
21. The land application sites shall have the soils tested for the parameters listed in Table II of Part I of the permit. Soil samples shall be collected according to the following method:
  - a. One composite soil sample shall be representative of  $\leq 40$  acres.
  - b. Identify representative sampling areas/zones that are uniform in soil and previous management history. Soils that are contained within the same soil association according to the USDA Soil Survey are considered uniform for the purposes of this permit. These areas shall be identified on a site map. The areas shall remain the same between each sampling event.
  - c. Using a clean soil probe, soil auger, or spade, collect a minimum of 20 individual subsamples to a 4-inch depth per sample area in a random zigzag or grid pattern (see Fig 1 below) in accordance with the sampling locations on the site map. If using a spade, avoid wedge shaped samples. One composite sample must be taken for every land application site identified in Condition 6 above.

- d. Combine individual subsamples in a clean plastic bucket and mix thoroughly. Place a subsample of the mixed composite in a clean soil box and label with the field ID name, and permittee information. Subsamples shall be representative of each land application site.



Grid Pattern



Zig Zag

Figure 1. Representative Soil Sampling of Land Application Area Patterns

22. Annual Reports are due by May 1st of each year for the previous permitted months from January to December (i.e. Annual report is due on May 1st, 2016 for the 2015 calendar year). Annual reports shall be sent to the Department and to the owner of the land receiving waste and include the following:
- land application dates;
  - land application locations;
  - quantities of biosolids applied in dry tons per acre per year and in gallons per acre per year;
  - methods of application;
  - cover crop grown on each field;
  - amounts of nitrogen applied;
  - total elements added (in that particular year) in lbs per acre;
  - total elements applied to date;
  - copies of the biosolids analysis, soil analyses and the biosolids certification.
  - map of locations of soil subsamples.

The annual reports shall be submitted to the following address:

Arkansas Department of Environmental Quality  
Water Division, No-Discharge Section  
5301 Northshore Dr.  
North Little Rock, Arkansas 72118  
Fax (501) 682-0880

Or

[Water-permit-application@adeq.state.ar.us](mailto:Water-permit-application@adeq.state.ar.us)



**Part III**  
**Standard Conditions**

**1. Duty to Comply**

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Arkansas Water and Air Pollution Control Act (Act 472 of 1949 as amended) and is grounds for civil and administrative enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

**2. Penalties for Violations of Permit Conditions**

The Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended) provides that any person who violates any provisions of a permit issued under the Act shall be guilty of a misdemeanor and upon conviction thereof shall be subject to imprisonment for not more than one (1) year, or a fine of not more than twenty-five thousand dollars (\$25,000) or both for each day of such violation. Any person who violates any provision of a permit issued under the Act may also be subject to civil penalty in such amount as the court shall find appropriate, not to exceed ten thousand dollars (\$10,000) for each day of such violation. The fact that any such violation may constitute a misdemeanor shall not be a bar to the maintenance of such civil action.

**3. Permit Actions**

A. This permit may be modified; revoked and reissued; or terminated for cause including, but not limited to the following:

- i. Violation of any terms or conditions of this permit;
- ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
- iii. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination; or
- iv. Failure of the permittee to comply with the provisions of Arkansas Pollution Control and Ecology Commission (APC&EC) Regulation No. 9 (Permit fees).

B. The filing of a request by the permittee for a permit modification; revocation and reissuance; termination; or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

**4. Civil and Criminal Liability**

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of this permit or applicable state statutes or regulations which defeats the regulatory purposes of the permit may subject the permittee to criminal enforcement pursuant to the Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended).

**5. Oil and Hazardous Substance Liability**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act and Section 106 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

6. **State Laws**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation.

7. **Property Rights**

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

8. **Severability**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provisions of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

9. **Permit Fees**

The permittee shall comply with all applicable permit fee requirements (i.e., including annual permit fees following the initial permit fee that will be invoiced every year the permit is active) for no-discharge permits as described in APC&EC Regulation No. 9 (Regulation for the Fee System for Environmental Permits). Failure to promptly remit all required fees shall be grounds for the Director to initiate action to revoke this permit.

10. **Proper Operation and Maintenance**

A. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

B. The permittee shall provide an adequate and trained operating staff which is duly qualified to carry out operation, maintenance and testing functions required to insure compliance with the conditions of this permit.

11. **Duty to Mitigate**

The permittee shall take all reasonable steps to prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health, the environment, or the water receiving the discharge.



12. **Removed Substances**

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of waste waters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering the waters of the State.

13. **Reporting of Violations and Unauthorized Discharges**

A. Any violations to this permit must be reported to the Enforcement Branch of the Department immediately (within 24 hours). Any leaks or seeps shall be reported to the Department and appropriately corrected. Any discharge from the fluids storage system such as an overflow, a broken pipe, etc., shall be immediately reported to the Department.

B. The operator shall visually monitor and report immediately (within 24 hours) to the Enforcement Branch any unauthorized discharge from any facility caused by dike or structural failure; equipment breakdown; human error; etc., and shall follow up with a written report within five (5) days of such occurrence. The written report shall contain the following:

- i. A description of the permit violation and its cause;
- ii. The period of the violation, including exact times and dates;
- iii. If the violation has not been corrected, the anticipated time expected to correct the violation; and
- iv. Steps taken or planned to reduce, eliminate, and prevent the recurrence of the violation.

C. Reports shall be submitted to the Enforcement Branch at the following address:

Arkansas Department of Environmental Quality  
Water Division, Enforcement Branch  
5301 Northshore Dr.  
North Little Rock, Arkansas 72118  
Fax (501) 682-0880

Or

[Water-enforcement-report@adeq.state.ar.us](mailto:Water-enforcement-report@adeq.state.ar.us)

14. **Penalties for Tampering**

The Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended) provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under the Act shall be guilty of a misdemeanor and upon conviction thereof shall be subject to imprisonment for not more than one (1) year or a fine of not more than ten thousand dollars (\$10,000) or by both such fine and imprisonment.

15. **Laboratory Analysis**

All laboratory analyses submitted to the Department shall be completed by a laboratory certified by ADEQ under Ark. Code Ann. § 8-2-201 *et seq.* Analyses for the permittee's internal quality control or process control do not need to be performed by an ADEQ certified laboratory.

**16. Retention of Records**

The permittee shall retain records of all monitoring information, copies of all reports required by this permit, and records of all data used to complete the application for this permit for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time.

**17. Record Contents**

Records and monitoring information shall include:

- A. The date, exact place, time, and methods of sampling or measurements, and preservatives used, if any;
- B. The individuals(s) who performed the sampling or measurements;
- C. The date(s) the analyses were performed;
- D. The individual(s) who performed the analyses;
- E. The analytical techniques or methods used; and
- F. The measurements and results of such analyses.

**18. Inspection and Entry**

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- A. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- C. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit,
- D. Sample, inspect, or monitor at reasonable times, for the purposes of assuring permit compliance any substances or parameters at any location.

**19. Planned Changes**

The permittee shall give notice and provide the necessary information to the Director for review and approval prior to any planned physical alterations or additions to the permitted facility.

**20. Anticipated Noncompliance**

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

**21. Transfers**

The permit is nontransferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act.



**22. Duty to Provide Information**

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying; revoking and reissuing; terminating this permit; or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit. Information shall be submitted in the form, manner and time frame requested by the Director.

**23. Duty to reapply**

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The complete application shall be submitted at least 180 days before the expiration date of this permit. The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Conditions of this permit will continue in effect past the expiration date pending issuance of a new permit, if:

- A. The permittee has submitted a timely and complete application; and
- B. The Director, through no fault of the permittee, does not issue a new permit prior to the expiration date of the previous permit.

**24. Signatory Requirements**

A. All applications, reports or information submitted to the Director shall be signed and certified. All permit applications shall be signed as follows:

- i. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
  - a. A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
  - b. The manager of one or more manufacturing, production, or operation facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including: having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- ii. For a partnership or sole proprietorship: by a general partner or proprietor, respectively; or
- iii. For a municipality, State, Federal, or other public agency; by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
  - a. The chief executive officer of the agency, or

- b. A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
- B. All reports required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- i. The authorization is made in writing by a person described above.
  - ii. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
  - iii. The written authorization is submitted to the Director.
- C. Any person signing a document under this section shall make the following certification: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

**25. Availability of Reports**

Except for data determined to be confidential under the Arkansas Trade Secrets Act, Ark. Code Ann. § 4-75-601 et seq., all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department of Environmental Quality. The name and address of any permit applicant or permittee, permit applications, permits, and effluent data shall not be considered confidential.

**26. Penalties for Falsification of Reports**

The Arkansas Air and Water Pollution Control Act provides that any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this permit shall be subject to civil penalties and/or criminal penalties under the authority of the Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended).

**27. Applicable Federal, State, or Local Requirements**

Permittees are responsible for compliance with all applicable terms and conditions of this permit. Receipt of this permit does not relieve any operator of the responsibility to comply with any other applicable Federal, State, or local statute, ordinance policy, or regulation.



**Part IV**  
Definitions

“**Act**” means the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*) as amended.

“**Annual Pollutant Loading Rate**” means the maximum amount of a pollutant (dry-weight basis) that can be applied to a unit area of land during a 365-day period.

“**APC&EC**” means the Arkansas Pollution Control and Ecology Commission.

“**Application Site or Land Application Site**” means all contiguous areas of a users' property intended for sludge application.

“**Available Acreage**” means total acreage minus buffer zones.

“**Biosolids**” means any sludge or material derived from sludge that can be beneficially used. Beneficial use includes, but is not limited to, land application to agricultural land, forest land, a reclamation site or sale or give away to the public for home lawn and garden use.

“**Cumulative Pollutant Loading Rate**” means the maximum of an inorganic pollutant (dry-weight basis) that is applied to a unit area of land.

“**Department**” means the Arkansas Department of Environmental Quality (ADEQ).

“**Director**” means the Director of the Arkansas Department of Environmental Quality.

“**Dry weight-basis**” means 100 percent solids (i.e., percent moisture).

“**Land application**” means the spraying or spreading of sewage sludge onto the land surface; the injection of sewage sludge below the land surface; or the incorporation of sewage sludge into the land so that the sewage sludge can either condition the soil or fertilize crops or vegetation grown in the soil. Land application includes distribution and marketing (i.e. the selling or giving away of the sludge).

“**Ordinary High Water Mark**” means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a cleat, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

“**Pathogen**” means an organism that is capable of producing an infection or disease in a susceptible host.

“**Pollutant Limit**” means a numerical value that describes the maximum amount of a pollutant allowed per unit amount of sewage sludge (e.g., milligrams per kilogram of total solids); the maximum amount of a pollutant that can be applied to a unit area of land (e.g., pounds per acre); the maximum density of a microorganism per unit amount of sewage sludge (e.g., Most Probable Number per gram of total solids); the maximum volume of a material that can be applied to a unit area of land (e.g., gallons per acre); or the maximum amount of pollutant allowed in plant tissue (e.g., parts per million).

“**Runoff**” means rainwater, leachate, or other liquid that drains overland on any part of a land surface and runs off of the land surface.

“**Sewage sludge**” means solid, semi-solid, or liquid residue generated during the treatment of domestic sewage and/or a combination of domestic sewage and industrial waste of a liquid nature in a Treatment Works. Sewage sludge includes, but is not limited to, domestic septage, scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the incineration of sewage sludge or grit and

screenings generated during preliminary treatment of domestic sewage in a Treatment Works. These must be disposed of in accordance with 40 CFR Part 258.

**"Total solids"** means the materials in the sewage sludge that remain as residue if the sludge is dried at 103 to 105 degrees Celsius.

**"Vector Attraction"** means the characteristic of sewage sludge that attracts rodents, flies, mosquitoes or other organisms capable of transporting infectious agents.

**"Volatile Solids"** means the amount of the total solids in sewage sludge lost when the sludge is combusted at 550 degrees Celsius for 15-20 minutes in the presence of excess air.

**"mg/l"** means milligrams per liter or parts per million (ppm).

**"mg/kg"** means milligram per kilogram.

**"NH<sub>3</sub>"** means Ammonia Nitrogen.

**"NO<sub>3</sub> + NO<sub>2</sub>"** means Nitrate + Nitrite Nitrogen.

**"PAN"** means Plant Available Nitrogen.

**"ppm"** means parts per million.

**"TKN"** means Total Kjeldahl Nitrogen.

**"s.u."** shall mean standard units.

**QUARTERLY:**

(1) is defined as a fixed calendar quarter or any part of the fixed calendar quarter for a non-seasonal effluent characteristic with a measurement frequency of once/quarter. Fixed calendar quarters are: January through March, April through June, July through September, and October through December; or

(2) is defined as a fixed three month period (or any part of the fixed three month period) of or dependent upon the seasons specified in the permit for a seasonal effluent characteristic with a monitoring requirement frequency of once/quarter that does not coincide with the fixed calendar quarter. Seasonal calendar quarters May through July, August through October, November through January, and February through April.

**SEMI-ANNUAL:**

is defined as the fixed time periods January through June, and July through December (or any portion thereof) for an effluent characteristic with a measurement frequency of once/6 months or twice/year.

**ANNUAL or YEARLY**

is defined as a fixed calendar year or any portion of the fixed calendar year for an effluent characteristic or parameter with a measurement frequency of once/year. A calendar year is January through December, or any portion thereof.



## STATEMENT OF BASIS

This Statement of Basis is for information and justification of the permit limits only and is not enforceable. This permit decision is for issuance of a No-Discharge operation under permit number 5243-W and AFIN 73-01260.

### 1. Permitting Authority

Arkansas Department of Environmental Quality  
Water Division, Permits Branch  
5301 Northshore Dr.  
North Little Rock, Arkansas 72118-5317

### 2. Applicant

Nebo Services, Inc.  
P.O. Box 981  
Russellville, AR 72811

### 3. Facility Location

The land application sites are located at: Nebo Services - White County, 276 Yankee Rd., Judsonia, AR, 72081 Directions: 276 Yankee Rd. in White County, Arkansas. The land application sites are located at the following coordinates:

Latitude: 35° 19' 41" N;      Longitude: 91° 38' 33" W

### 4. Waterbody Evaluation

The land application sites are located in Stream Segment 4E of the White River basin, which is not in the Nutrient Surplus Area. Surrounding areas were evaluated to determine if any Extraordinary Resource Waters (ERWs), Ecologically Sensitive Waterbodies (ESWs), Natural and Scenic Waterways (NSW), or waterbodies in the 2008 ADEQ 303(d) list of impaired waterbodies in the State of Arkansas are near the land application sites. The waterbody evaluation was determined that the a portion of the land application sites are within one mile from Overflow Creek which is a Category 5 impaired stream for zinc from agriculture. Overflow Creek also has an established TMDL for pathogens; however, the application sites meet the required setbacks and no additional permit requirements are necessary.

### 5. Applicant Activity

Under the standard industrial classification (SIC) code 4953 or North American Industry Classification System (NAICS) code 562998, the applicant's activities are the operation of a refuse system. This permit is for the land application of municipal biosolids.

6. Waste Application Method

Nebo Services, Inc. will transport biosolids from Wastewater Treatment Plants by sealed tanker truck to land application sites located in White County. Liquid biosolids will be thoroughly mixed prior to removal from the lagoons/holding ponds by a lagoon pump equipped with an agitator pump. In most cases, the material will be land applied via surface spreading. It may be spread directly from the tank trucks which will be equipped with splat plates, or from spreader buggies.

7. Total Available Acreage

The permittee has 549.1 acres available to land apply the waste. The application of wastes is limited by 40 C.F.R Part 503 ceiling concentration limits, 40 C.F.R. Part 503 cumulative pollutant loading, plant available nitrogen (PAN) equation and the nitrogen uptake rate of the cover crop, refer to Condition 3 of Part II of the permit.

8. List of all Land Application Sites

See Condition 6 of Part II of the permit.

9. Basis for Permit Conditions

The Arkansas Department of Environmental Quality has made a determination to issue a permit for the no-discharge facility as described in the application and waste management plan. Permit requirements and conditions are authorized pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et seq. and Ark. Code Ann. § 8-4-201 et seq.) and regulations promulgated thereunder.

Permit conditions, limits, reporting requirements, and justifications are listed as follows:

A. Part I—Permit Requirements

i. Monitoring Frequency

This facility proposes to land apply 5,000 tons of biosolids annually; therefore, in accordance with Table 1 of 40 C.F.R. Part 503.16, the frequency of monitoring is once per 60 days (six times per year). The monitoring frequency of once per 60 days is to ensure that a representative sample of what is being applied to the land is measured and recorded. In order to ensure over application of nutrients does not occur, the total volume of each waste and nitrogen application rate must be measured and recorded daily from each waste stream. The loading rates and application rates shall be calculated using each waste analysis and the volume of waste applied from each waste stream. The parameters that must be measured at this frequency can be compared to the soil parameters if a problem arises to determine if the land application is the pollutant source.

Some soil parameters only need to be measured once every 5 years because annual measurements do not show a significant accumulation.



ii. Waste Monitoring and Reporting Requirements

- a. Limits and reporting requirements for arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, and zinc in the biosolids

The associated limits and Cumulative Pollutant Loading Rates (CPLRs) are adapted from EPA's risk assessment Title 40 of the Code of Federal Regulations (C.F.R.) Part 503 rule that governs the land application of sewage sludge. This assessment considered 14 different pathways of exposure to highly exposed individuals, including humans, animals (including small organisms) and plants. These limits minimize the potential for the accumulation of metals in soils to concentrations that could have adverse effects on the environment.

- b. Limit for polychlorinated biphenyls (PCBs) concentration in the biosolids

Biosolids can contain trace amounts of PCBs. The content of PCBs in biosolids to be land applied is limited to a maximum of 50 mg/kg under 40 C.F.R. Part 761. Annual reporting requirements for PCBs were included to verify compliance with the permit.

- c. Reporting requirements for percent total solids in the biosolids

This parameter is required to convert the effluent analysis values between a wet and dry basis.

- d. Reporting requirements for pH of the biosolids

The pH of the biosolids must be reported to ensure that it will not negatively impact the pH of the soil.

- e. Reporting requirements for all nitrogen compounds in the waste

These concentrations are required to calculate the plant available nitrogen to comply with Condition No. 3 of Part II of the permit.

- f. Reporting requirements for total phosphorus and total potassium in the biosolids

These constituents are required for plant growth and are monitored to ensure crop nutrients are provided.

- g. Total Volume of Waste Applied

The total volume of waste applied is also needed to calculate the loading of metals and nutrients to the land application site.

h. Reporting requirements for Sodium Adsorption Ratio (SAR) in the biosolids

SAR is a measure of sodicity hazard commonly used to evaluate irrigation water and soils for agricultural use. Because the biosolids will be land applied, the SAR needs to be evaluated to show the biosolids is acceptable for use. According to the *Practical Handbook of Disturbed Land Revegetation* (Munshower, 1994), when the SAR rises above 18 in the waste, serious physical soil problems arise and plants have difficulty absorbing water. SAR is calculated using the following equation.

$$SAR = \frac{Na/23}{\sqrt{\frac{Ca/20 + Mg/12}{2}}}$$

iii. Soil monitoring and reporting requirementsa. Limit for the electrical conductivity of the soil

The measurement of the electrical conductivity (EC) of the soil is used to determine the salinity or the amount of salts in the soil. In *Soils: an Introduction to Soils and Plant Growth*, an EC of 4.0 mmhos/cm or less is considered normal. Once the EC exceeds 4.0 mmhos/cm, the soil becomes Saline. Saline soils are known to reduce plant growth and affect soil permeability.

b. Reporting requirements for pH of the soil

Soil pH must be monitored to ensure compliance with Table II of Part I of the permit. The acidic limit of 5.7 was adapted from the University of Arkansas Cooperative Extension Service (UAEX) Self-study Guide 8: Soil Fertility Management in Pastures Essential Nutrient for Plant Growth to maintain an optimal pH for plant growth. Also when the pH becomes too low, heavy metals are more soluble and therefore more susceptible to leaching to the groundwater.

c. Reporting requirements for Sodium Adsorption Ratio (SAR) in the soil

In addition to evaluating SAR in the effluent, it should also be regularly monitored in the soils of the application site. According to the *Practical Handbook of Disturbed Land Revegetation* (Munshower, 1994), when the SAR rises above 12 to 15 in the soil serious physical soil problems arise and plants have difficulty absorbing water. According to the 2009 ADEQ Landfarm Study, University of Arkansas soil scientist, Dr. Kristofor Brye, recommends that the SAR in soil be less than 12. SAR values above this range are considered undesirable conditions for plant growth. High sodium content disperses the soil and causes it to crust. Sodium also negatively influences the ability of water to infiltrate the soil. Soils with a SAR above the acceptable range are not easily remediated. SAR is calculated using the following equation.

$$SAR = \frac{Na/23}{\sqrt{\frac{Ca/20 + Mg/12}{2}}}$$



- d. Reporting requirements for cation exchange capacity, nitrate-nitrogen, phosphorus, and potassium in soils

These parameters are indicators of soil quality. The chemical condition of soil affects soil-plant relations, water quality, buffering capacities, availability of nutrients and water to plants and other organisms, mobility of contaminants, and some physical conditions. (USDA Natural Resources Conservation Service "Indicators for Soil Quality Evaluation" April 1996.) Reporting requirements are included to verify that problems from over-application of wastes or other sources are not occurring. If results indicate that soil concentrations have increased, the Department may require cessation of land application activities, further testing, or remediation activities.

- e. Reporting requirements for arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, and zinc in soils

The list of metal cations was adapted from 40 C.F.R. Part 503 for the land application of sewage sludge. Limits were not established due to the variability of analyzing the concentrations of these metals. Reporting requirements are included to verify that metals from land application of waste or other sources are not being applied at a rate that causes accumulation of metals to levels that could have adverse effects on the environment. If results indicate that soil concentrations have increased, the Department may require cessation of land application activities, further testing, or remediation activities.

*B. Part II—Specific Conditions*

- i. Reporting requirements for all nitrogen compounds in the treated waste, Plant Available Nitrogen (PAN) application limit and vegetation cover requirement

Any land application of treated waste is limited by the nitrogen uptake of the cover crop. Nitrate-nitrogen, nitrite-nitrogen, ammonia-nitrogen, and total kjeldahl nitrogen need to be monitored and reported on an annual basis to calculate the Plant Available Nitrogen (PAN) in order to comply with Condition No. 3 of Part II of the permit and to ensure that the waste is not being over applied to the land application sites. The application rate is designed to provide the amount of nitrogen needed by the crop or vegetation while minimizing the risk of nitrogen supplied in the waste from migrating to the groundwater. This limit ensures that nitrogen supplied in the waste will have no greater impact on groundwater than that supplied in agricultural operations using commercial fertilizers or manure. An 80% vegetative cover is required for stabilization purposes to reduce the risk of soil erosion and runoff.

- ii. Cumulative Loading Rate

The Water Division has provided the proper Cumulative Pollutant Loading Rate equation in order to ensure the permittee does not exceed the metal loading rate. Land application of biosolids is limited by the metal loading on the soils. The application rate is designed to be protective of the environment and has been adapted from 40 C.F.R. Part 503.

iii. Permit termination if the land application site is currently permitted under a previously issued permit

A site covered in more than one permit is at risk of over application of nutrients and metals. This condition encourages the applicant to confirm with the landowner that the site is not currently covered under another active permit before permitting the site.

iv. No runoff or discharge requirement

A discharge from this site may result in pollutants entering the waters of the State. Specific land application method requirements including even surface application or subsoil injection and precipitation and moisture limitations, are to ensure that no runoff containing potential pollutants will enter the waters of the State. These conditions are adaptations of APC&EC Regulation 5.406 (A) & (B).

v. Maximum allowable slope for the land application area

In order to protect waters of the State, additional measures must be taken to ensure contamination via runoff is prevented. Topography of the land application area affects the potential for runoff and erosion. The limits listed in Condition 11 of Part II of the permit were adapted from the *Wastewater Engineering: Treatment and Reuse, 4th Edition*, Table 14-51 as an acceptable maximum slope for the acceptable application of wastes.

vi. Land application of waste to a flood plain

Land application of waste to a flood plain shall not increase the level of the base flood by one foot or more, to avoid increasing the velocity of the flow downstream of the site, reducing the temporary storage capacity of the flood plain, or increasing the levels of the flood waters.

vii. Buffer distances

Minimum buffer distances are required between land application areas and areas that may be vulnerable to water pollution in order to minimize the risk of nutrients or pollutants from leaving the field and reaching surface waters. Buffer distances were adapted from APC&EC Regulation 5.406(D) and generally accepted scientific knowledge and engineering practices.

viii. Habitat protection

This condition is adapted from 40 C.F.R. Part 503 and is included to ensure that endangered or threatened species are considered and protected during land application.

ix. Soil Sampling

The sampling requirements were included in the permit to ensure the samples of the soils are collected in an appropriate manner and to ensure representative samples are collected.



C. Part III—Standard Conditions

Standard Conditions have been included in this permit based on generally accepted scientific knowledge, engineering practices and the authority of the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et. seq.).

D. Part IV—Definitions

All definitions in Part IV of the permit are self-explanatory.

**10. Point of Contact**

For additional information, contact

Sarah Cousins  
Engineer  
Permits Branch, Water Division  
5301 Northshore Drive  
North Little Rock, AR 72118-5317  
501-682-0627  
E-mail: cousins@adeq.state.ar.us

Technical review

Jamal Solaimanian, Ph.D., P.E.  
Engineer Supervisor  
Permits Branch, Water Division  
5301 Northshore Drive  
North Little Rock, AR 72118-5317  
501-682-0647  
E-mail: jamal@adeq.state.ar.us

**11. Sources**

The following Sources were used to draft the permit:

- A. APC&EC Regulation No. 2, Regulation Establishing Water Quality Standards for Surface Waters of the State of Arkansas, as amended.
- B. APC&EC Regulation No. 5, Liquid Animal Waste Management Systems, as amended.
- C. APC&EC Regulation No. 8, Administrative Procedures, as amended.
- D. APC&EC Regulation No. 9, Fee System for Environmental Permits, as amended.
- E. 40 C.F.R. Part 503 for land application of sewage sludge.
- F. Ark. Code Ann. § 8-4-101 et seq., Arkansas Water and Air Pollution Control Act.
- G. Ark. Code Ann. § 4-75-601 et seq., Arkansas Trade Secrets Act.
- H. Integrated Water Quality and Assessment Report (305(b) Report).
- I. US Army Corps of Engineers Regulatory Guidance Letter No. 05-05.
- J. 2009 ADEQ Landfarm Study.
- K. *Practical Handbook of Disturbed Land Revegetation*, Munshower, 1994.
- L. *Wastewater Engineering: Treatment and Reuse, 4th Edition*.

- M. UAEX Self-Study Guide 8: Soil Fertility Management in Pastures essential Nutrient for Plant Growth.
- N. *Soils: An Introduction to Soils and Plant Growth*: 4<sup>th</sup> Edition; Donahue, Miller, & Shickluna; 1977.
- O. USDA Part 651, Animal Waste Management Field Handbook.
- P. Application No. 5243-W received 3/12/2015.
- Q. Additional information submitted 4/1/2015 and 5/21/2015.

**Nebo Services, Inc.**  
**White County Land List**

<u>Field ID</u>	<u>Owner</u>	<u>Section(s)</u>	<u>Township</u>	<u>Range</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Acres</u>	<u>Cover Crop</u>	<u>Nearest Stream</u>	<u>Distance to Stream</u>
DM-1	Delbert Miesen	15	8 North	6 West	35° 19' 04" N	91° 38' 27" W	56.75	Bermuda	Flat Creek	100'
DM-2	Delbert Miesen	15	8 North	6 West	35° 19' 20" N	91° 38' 13" W	52.74	Bermuda	Flat Creek	100'
DM-3	Delbert Miesen	10	8 North	6 West	35° 19' 48" N	91° 38' 20" W	84.49	Bermuda	Powder Fork	450'
DM-4	Delbert Miesen	9	8 North	6 West	35° 19' 59" N	91° 38' 43" W	44.72	Bermuda	Powder Fork	270'
DM-5	Delbert Miesen	9	8 North	6 West	35° 20' 10" N	91° 39' 09" W	28.00	Bermuda	Flat Creek	1000'
RR-1	Robyn Roach	21	8 North	6 West	35° 18' 36" N	91° 38' 58" W	32.85	Bermuda	Corn Stalk Branch	100'
RR-2	Robyn Roach	21	8 North	6 West	35° 18' 29" N	91° 38' 46" W	35.67	Bermuda	Corn Stalk Branch	100'
RR-3	Robyn Roach	22	8 North	6 West	35° 18' 38" N	91° 38' 21" W	55.68	Bermuda	Flat Creek Trib.	100'
RR-4	Robyn Roach	16	8 North	6 West	35° 18' 52" N	91° 39' 30" W	16.42	Bermuda	Corn Stalk Branch	550'
BW-1	Robert Wright	4	8 North	6 West	35° 20' 58" N	91° 38' 43" W	32.49	Bermuda	Flat Creek Trib.	1400'
GR-1	Glen Reed	34	9 North	6 West	35° 22' 00" N	91° 38' 04" W	39.20	Bermuda	Onion Creek	500'
RW-1	Ronald Wools	34	9 North	6 West	35° 21' 36" N	91° 37' 58" W	31.43	Bermuda	Onion Creek	300'
DMc-1	Donald McAdams	34	9 North	6 West	35° 22' 03" N	91° 38' 19" W	38.66	Bermuda	Onion Creek	650'

**Total Available Acres: 549.10 acres**





**NEBO**  
SERVICES

## **2015 Annual Report**

**Permit No. 5243-W**  
**AFIN: 73-01260**  
**White County**

**March 17, 2016**

**Report Prepared By:**

Billy C. Staton, P.E.  
P.O. Box 981  
Russellville, AR 72811  
(479) 264-9147

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## LAND APPLICATION RECORDS

Nebo Services - ADEQ Permit No. 5243-W  
 2015 Land Application Documentation  
 Field ID - D Miesen 3 (DM-3)

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<u>Date</u>	<u>Source</u>	<u>Waste Type</u>	<u>Total Volume Land Applied</u>	<u>Dry Tons</u>	<u>Field ID</u>	<u>Application Method</u>
9/17/2015	Searcy-South Pd	Biosolids	156,000 Gallons	47.23	DM-3	Surface
9/18/2015	Searcy-South Pd	Biosolids	572,000 Gallons	186.05	DM-3	Surface
9/19/2015	Searcy-South Pd	Biosolids	539,500 Gallons	161.53	DM-3	Surface
9/20/2015	Searcy-South Pd	Biosolids	520,000 Gallons	164.79	DM-3	Surface
9/21/2015	Searcy-South Pd	Biosolids	585,000 Gallons	192.75	DM-3	Surface
9/22/2015	Searcy-South Pd	Biosolids	383,500 Gallons	140.73	DM-3	Surface
<b>Field Total =</b>			2,756,000 Gallons	893.1 Dry Tons		



Nebo Services - ADEQ Permit No. 5243-W  
 2015 Land Application Documentation  
 Field ID - D Miesen 5 (DM-5)

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<u>Date</u>	<u>Source</u>	<u>Waste Type</u>	<u>Total Volume Land Applied</u>	<u>Dry Tons</u>	<u>Field ID</u>	<u>Application Method</u>
9/23/2015	Searcy-South Pd	Biosolids	123,500 Gallons	48.72	DM-5	Surface
9/24/2015	Searcy-South Pd	Biosolids	253,500 Gallons	168.08	DM-5	Surface
9/25/2015	Searcy-South Pd	Biosolids	624,000 Gallons	323.96	DM-5	Surface

**Field Total =** 1,001,000 Gallons  
 540.8 Dry Tons

Nebo Services - ADEQ Permit No. 5243-W  
 2015 Land Application Documentation  
 Field ID - D Miesen 4 (DM-4)

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<u>Date</u>	<u>Source</u>	<u>Waste Type</u>	<u>Total Volume Land Applied</u>	<u>Dry Tons</u>	<u>Field ID</u>	<u>Application Method</u>
9/26/2015	Searcy-South Pd	Biosolids	526,500 Gallons	253.8	DM-4	Surface
9/27/2015	Searcy-South Pd	Biosolids	481,000 Gallons	236.28	DM-4	Surface
9/28/2015	Searcy-South Pd	Biosolids	143,000 Gallons	54.98	DM-4	Surface

**Field Total =** 1,150,500 Gallons  
 545.1 Dry Tons

Nebo Services - ADEQ Permit No. 5243-W  
 2015 Land Application Documentation  
 Field ID - D Miesen 2 (DM-2)

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<u>Date</u>	<u>Source</u>	<u>Waste Type</u>	<u>Total Volume Land Applied</u>	<u>Dry Tons</u>	<u>Field ID</u>	<u>Application Method</u>
9/28/2015	Searcy-South Pd	Biosolids	409,500 Gallons	157.44	DM-2	Surface
9/29/2015	Searcy-South Pd	Biosolids	429,000 Gallons	162.97	DM-2	Surface
9/30/2015	Searcy-South Pd	Biosolids	188,500 Gallons	123.88	DM-2	Surface
10/1/2015	Searcy-South Pd	Biosolids	84,500 Gallons	63.99	DM-2	Surface

**Field Total =** 1,111,500 Gallons  
 508.3 Dry Tons



# FIELD REPORTS W/ LOADING RATE CALCULATIONS

## Nebo Services - ADEQ Permit No. 5243-W 2015 Land Application - Field Loading Rate Report

Field ID: D Miesen 3 (DM-3)

Available Acreage: 84.49  
 Field Cover Crop: Bermuda  
 PAN Appl. Rate (lbs/ac): 300  
 Total PAN Available (lbs): 25,347  
 Total PAN Applied (lbs): 13,335.0

Waste Source	Volume Applied	Units	Dry Tons Applied		PAN Applied		P	K	Ar	Cd	Cu	Metal Loading Rates (lbs/acre)					
			(tons)	(tons/acre/year)	(lbs)	(lbs/acre)						Pb	Hg	Mo	Ni	Se	Zn
Searcy WWTP - South Pond	2,756,000	gallons	893.1	10.5702	13,335.0	157.83	1,523.4	64.7	0.1904	0.13711	8.3790	1.4473	0.02019	0.3809	4.1895	0.5332	19.8048
2015 Field Totals	2,756,000	gallons	893.1	10.5702	13,335.0	157.83	1,523.4	64.7	0.1904	0.13711	8.3790	1.4473	0.02019	0.3809	4.1895	0.5332	19.8048

Parameter	2015 Loading (lb/acre)	Prior Cumulative Loading (lb/acre)	Cumulative Loading (lb/acre)
Arsenic	0.1904	0.0000	0.1904
Cadmium	0.1371	0.0000	0.1371
Copper	8.3790	0.0000	8.3790
Lead	1.4473	0.0000	1.4473
Mercury	0.0202	0.0000	0.0202
Molybdenum	0.3809	0.0000	0.3809
Nickel	4.1895	0.0000	4.1895
Selenium	0.5332	0.0000	0.5332
Zinc	19.8048	0.0000	19.8048

## Nebo Services - ADEQ Permit No. 5243-W 2015 Land Application - Field Loading Rate Report

Field ID: D Miesen 5 (DM-5)

Available Acreage: 28  
 Field Cover Crop: Bermuda  
 PAN Appl. Rate (lbs/ac): 300  
 Total PAN Available (lbs): 8,400  
 Total PAN Applied (lbs): 4,843.4

Waste Source	Volume Applied	Units	Dry Tons Applied		PAN Applied		P	K	Ar	Cd	Cu	Metal Loading Rates (lbs/acre)					
			(tons)	(tons/acre/year)	(lbs)	(lbs/acre)						Pb	Hg	Mo	Ni	Se	Zn
Searcy WWTP - South Pond	1,001,000	gallons	540.8	19.3129	4,843.4	172.98	1,669.7	71.0	0.2087	0.15027	9.1832	1.5862	0.02212	0.4174	4.5916	0.5844	21.7057
2015 Field Totals	1,001,000	gallons	540.8	19.3129	4,843.4	172.98	1,669.7	71.0	0.2087	0.15027	9.1832	1.5862	0.02212	0.4174	4.5916	0.5844	21.7057

Parameter	2015 Loading (lb/acre)	Prior Cumulative Loading (lb/acre)	Cumulative Loading (lb/acre)
Arsenic	0.2087	0.0000	0.2087
Cadmium	0.1503	0.0000	0.1503
Copper	9.1832	0.0000	9.1832
Lead	1.5862	0.0000	1.5862
Mercury	0.0221	0.0000	0.0221
Molybdenum	0.4174	0.0000	0.4174
Nickel	4.5916	0.0000	4.5916
Selenium	0.5844	0.0000	0.5844
Zinc	21.7057	0.0000	21.7057



## Nebo Services - ADEQ Permit No. 5243-W 2015 Land Application - Field Loading Rate Report

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Field ID: D Miesen 4 (DM-4)

Available Acreage: 44.72  
 Field Cover Crop: Bermuda  
 PAN Appl. Rate (lbs/ac): 300  
 Total PAN Available (lbs): 13,416  
 Total PAN Applied (lbs): 5,566.7

Waste Source	Volume Applied	Units	Dry Tons Applied		PAN Applied		Metal Loading Rates (lbs/acre)										
			(tons)	(tons/acre/year)	(lbs)	(lbs/acre)	P	K	Ar	Cd	Cu	Pb	Hg	Mo	Ni	Se	Zn
Searcy WWTP - South Pond	1,150,500	gallons	545.1	12.1883	5,566.7	124.48	1,201.5	51.1	0.1502	0.10814	6.6085	1.1415	0.01592	0.3004	3.3042	0.4205	15.6200
2015 Field Totals	1,150,500	gallons	545.1	12.1883	5,566.7	124.48	1,201.5	51.1	0.1502	0.10814	6.6085	1.1415	0.01592	0.3004	3.3042	0.4205	15.6200

Parameter	2015 Loading (lb/acre)	Prior Cumulative Loading (lb/acre)	Cumulative Loading (lb/acre)
Arsenic	0.1502	0.0000	0.1502
Cadmium	0.1081	0.0000	0.1081
Copper	6.6085	0.0000	6.6085
Lead	1.1415	0.0000	1.1415
Mercury	0.0159	0.0000	0.0159
Molybdenum	0.3004	0.0000	0.3004
Nickel	3.3042	0.0000	3.3042
Selenium	0.4205	0.0000	0.4205
Zinc	15.6200	0.0000	15.6200

## Nebo Services - ADEQ Permit No. 5243-W 2015 Land Application - Field Loading Rate Report

Field ID: D Miesen 2 (DM-2)

Available Acreage: 52.74  
 Field Cover Crop: Bermuda  
 PAN Appl. Rate (lbs/ac): 300  
 Total PAN Available (lbs): 15,822  
 Total PAN Applied (lbs): 5,378.0

Waste Source	Volume Applied	Units	Dry Tons Applied		PAN Applied		Metal Loading Rates (lbs/acre)										
			(tons)	(tons/acre/year)	(lbs)	(lbs/acre)	P	K	Ar	Cd	Cu	Pb	Hg	Mo	Ni	Se	Zn
Searcy WWTP - South Pond	1,111,500	gallons	508.3	9.6375	5,378.0	101.97	984.3	41.8	0.1230	0.08859	5.4136	0.9351	0.01304	0.2461	2.7068	0.3445	12.7958
2015 Field Totals	1,111,500	gallons	508.3	9.6375	5,378.0	101.97	984.3	41.8	0.1230	0.08859	5.4136	0.9351	0.01304	0.2461	2.7068	0.3445	12.7958

Parameter	2015 Loading (lb/acre)	Prior Cumulative Loading (lb/acre)	Cumulative Loading (lb/acre)
Arsenic	0.1230	0.0000	0.1230
Cadmium	0.0886	0.0000	0.0886
Copper	5.4136	0.0000	5.4136
Lead	0.9351	0.0000	0.9351
Mercury	0.0130	0.0000	0.0130
Molybdenum	0.2461	0.0000	0.2461
Nickel	2.7068	0.0000	2.7068
Selenium	0.3445	0.0000	0.3445
Zinc	12.7958	0.0000	12.7958

**BIOSOLIDS ANALYTICAL INFORMATION**

**GENERATOR CERTIFICATION STATEMENTS**

## Nebo Services - ADEQ Permit No. 5243-W

### Analytical Information

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**Waste Source:** Searcy WWTP - Searcy, AR  
 Municipal Biosolids - South Pond  
**Analysis Date:** 1/16/15 & 3/27/15  
**Application Method:** Surface

Parameter	Dry Weight Concentration	Wet Weight Concentration	unit	Permit Ceiling Concentration Limit	Within Permit Limits?
Arsenic	5.0	0.7000	mg/kg	75	Yes
Cadmium	3.6	0.5040	mg/kg	85	Yes
Copper	220	30.8000	mg/kg	4,300	Yes
Lead	38	5.3200	mg/kg	840	Yes
Mercury	0.5	0.0742	mg/kg	57	Yes
Molybdenum	10.0	1.4000	mg/kg	75	Yes
Nickel	110	15.4000	mg/kg	420	Yes
Selenium	14.0	1.9600	mg/kg	100	Yes
Zinc	520	72.8000	mg/kg	7,500	Yes
PCBs	0.1		mg/kg		
pH	6.80		S.U.		
Total Solids	14.00		%		
Nitrate Nitrogen	2	0.280	mg/kg		
Nitrite Nitrogen	2	0.280	mg/kg		
Ammonia Nitrogen	1,200	168	mg/kg		
TKN	13,000	1820	mg/kg		
Total Phosphorus	40,000	5600	mg/kg		
Total Potassium	1,700	238	mg/kg		
Sodium	970	136	mg/kg		
Calcium	17,000	2380	mg/kg		
Magnesium	2,400	336	mg/kg		
PAN					
	<b>PAN:</b>	580.16	mg/kg		
		0.00484	lb/gal		
		29.0	lb/6000 gal		
		19.4	lb/4000 gal		
	<b>Phosphorus (P<sub>2</sub>O<sub>5</sub>):</b>	641.7	lb/6000 gal		
	<b>Potassium (K<sub>2</sub>O):</b>	14.3	lb/6000 gal		



Searcy Water and Sewer System  
 Post Office Box 1319  
 Searcy, AR 72145

**ANALYTICAL RESULTS**
**AIC No. 186454-1 (Continued)**
**Sample Identification: North Sludge Pond 08-Jan-2015 1135**

<u>Analyte</u>	<u>Result</u>	<u>RL</u>	<u>Units</u>	<u>Qualifier</u>
<b>Polychlorinated Biphenyls (PCBs) By EPA 3550C, 8082A (Continued)</b>				
Surrogate: Decachlorobiphenyl (40.6-189%)	125		%	
EPA 3550C, 8082A	Prep: 12-Jan-2015 1704 by 306	Analyzed: 14-Jan-2015 1352 by 306	Batch: G9976	

**AIC No. 186454-2**
**Sample Identification: South Sludge Pond 08-Jan-2015 1151**

<u>Analyte</u>	<u>Result</u>	<u>RL</u>	<u>Units</u>	<u>Qualifier</u>
<b>TCLP: Solids</b> EPA 1311	<b>100</b> Analyzed: 12-Jan-2015 1707 by 313	<b>0.5</b>	<b>%</b> Batch: S37883	
<b>TCLP: Arsenic</b> EPA 3010A, 6010C	<b>&lt; 0.3</b> Prep: 13-Jan-2015 1121 by 313 Analyzed: 13-Jan-2015 1600 by 311	<b>0.3</b>	<b>mg/l</b> Batch: S38078	<b>D</b> Dil: 5
<b>TCLP: Barium</b> EPA 3010A, 6010C	<b>0.044</b> Prep: 13-Jan-2015 1121 by 313 Analyzed: 13-Jan-2015 1600 by 311	<b>0.01</b>	<b>mg/l</b> Batch: S38078	<b>D</b> Dil: 5
<b>TCLP: Cadmium</b> EPA 3010A, 6010C	<b>&lt; 0.02</b> Prep: 13-Jan-2015 1121 by 313 Analyzed: 13-Jan-2015 1600 by 311	<b>0.02</b>	<b>mg/l</b> Batch: S38078	<b>D</b> Dil: 5
<b>TCLP: Chromium</b> EPA 3010A, 6010C	<b>&lt; 0.04</b> Prep: 13-Jan-2015 1121 by 313 Analyzed: 13-Jan-2015 1600 by 311	<b>0.04</b>	<b>mg/l</b> Batch: S38078	<b>D</b> Dil: 5
<b>TCLP: Lead</b> EPA 3010A, 6010C	<b>&lt; 0.2</b> Prep: 13-Jan-2015 1121 by 313 Analyzed: 13-Jan-2015 1719 by 311	<b>0.2</b>	<b>mg/l</b> Batch: S38078	<b>D</b> Dil: 5
<b>TCLP: Selenium</b> EPA 3010A, 6010C	<b>&lt; 0.4</b> Prep: 13-Jan-2015 1121 by 313 Analyzed: 13-Jan-2015 1600 by 311	<b>0.4</b>	<b>mg/l</b> Batch: S38078	<b>D</b> Dil: 5
<b>TCLP: Silver</b> EPA 3010A, 6010C	<b>&lt; 0.04</b> Prep: 13-Jan-2015 1121 by 313 Analyzed: 13-Jan-2015 1600 by 311	<b>0.04</b>	<b>mg/l</b> Batch: S38078	<b>D</b> Dil: 5
<b>TCLP: Mercury</b> EPA 7470A	<b>&lt; 0.008</b> Prep: 14-Jan-2015 0833 by 302 Analyzed: 14-Jan-2015 1330 by 311	<b>0.008</b>	<b>mg/l</b> Batch: S38082	<b>D</b> Dil: 40
<b>Total Cyanide</b> EPA 9010C, 9014	<b>&lt; 0.7</b> Prep: 09-Jan-2015 1117 by 308 Analyzed: 09-Jan-2015 1604 by 308	<b>0.7</b>	<b>mg/Kg</b> Batch: W50534	
<b>Total Recoverable Phenolics</b> EPA 9065	<b>27</b> Prep: 09-Jan-2015 1118 by 308 Analyzed: 09-Jan-2015 1500 by 308	<b>4</b>	<b>mg/Kg</b> Batch: W50533	
<b>Total Solids</b> SM 2540 G 1997	<b>14</b> Prep: 09-Jan-2015 1459 by 302 Analyzed: 12-Jan-2015 1429 by 302	<b>0.01</b>	<b>wt %</b> Batch: W50547	
<b>Ammonia as N</b> SM 4500-NH3 B,G 1997	<b>1200</b> Prep: 12-Jan-2015 1522 by 93 Analyzed: 12-Jan-2015 1852 by 93	<b>70</b>	<b>mg/Kg</b> Batch: W50568	
<b>Total Kjeldahl Nitrogen</b> SM 4500-Norg D 1997	<b>13000</b> Prep: 09-Jan-2015 1705 by 308 Analyzed: 14-Jan-2015 1059 by 308	<b>3000</b>	<b>mg/Kg</b> Batch: W50553	
<b>Antimony</b> EPA 3051A, 6010C	<b>&lt; 3</b> Prep: 12-Jan-2015 1233 by 313 Analyzed: 13-Jan-2015 1811 by 311	<b>3</b>	<b>mg/Kg</b> Batch: S38072	
<b>Arsenic</b> EPA 3051A, 6010C	<b>&lt; 5</b> Prep: 12-Jan-2015 1233 by 313 Analyzed: 13-Jan-2015 1811 by 311	<b>5</b>	<b>mg/Kg</b> Batch: S38072	
<b>Beryllium</b> EPA 3051A, 6010C	<b>0.43</b> Prep: 12-Jan-2015 1233 by 313 Analyzed: 13-Jan-2015 1811 by 311	<b>0.03</b>	<b>mg/Kg</b> Batch: S38072	

Searcy Water and Sewer System  
 Post Office Box 1319  
 Searcy, AR 72145

**ANALYTICAL RESULTS**
**AIC No. 186454-2 (Continued)**
**Sample Identification: South Sludge Pond 08-Jan-2015 1151**

<b>Analyte</b>		<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Qualifier</b>
<b>Cadmium</b>		<b>3.6</b>	<b>0.4</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 12-Jan-2015 1233 by 313	Analyzed: 13-Jan-2015 1811 by 311		Batch: S38072	
<b>Chromium</b>		<b>210</b>	<b>0.7</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 12-Jan-2015 1233 by 313	Analyzed: 13-Jan-2015 1811 by 311		Batch: S38072	
<b>Copper</b>		<b>220</b>	<b>0.6</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 12-Jan-2015 1233 by 313	Analyzed: 13-Jan-2015 1811 by 311		Batch: S38072	
<b>Lead</b>		<b>38</b>	<b>4</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 12-Jan-2015 1233 by 313	Analyzed: 13-Jan-2015 1811 by 311		Batch: S38072	
<b>Molybdenum</b>		<b>10</b>	<b>0.8</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 12-Jan-2015 1233 by 313	Analyzed: 13-Jan-2015 1811 by 311		Batch: S38072	
<b>Nickel</b>		<b>110</b>	<b>1</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 12-Jan-2015 1233 by 313	Analyzed: 13-Jan-2015 1811 by 311		Batch: S38072	
<b>Phosphorus</b>		<b>40000</b>	<b>100</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 12-Jan-2015 1233 by 313	Analyzed: 13-Jan-2015 1814 by 311		Batch: S38072	
<b>Selenium</b>		<b>14</b>	<b>7</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 12-Jan-2015 1233 by 313	Analyzed: 13-Jan-2015 1811 by 311		Batch: S38072	
<b>Silver</b>		<b>15</b>	<b>0.7</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 12-Jan-2015 1233 by 313	Analyzed: 13-Jan-2015 1811 by 311		Batch: S38072	
<b>Thallium</b>		<b>&lt; 4</b>	<b>4</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 12-Jan-2015 1233 by 313	Analyzed: 13-Jan-2015 1811 by 311		Batch: S38072	
<b>Zinc</b>		<b>520</b>	<b>0.2</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 12-Jan-2015 1233 by 313	Analyzed: 13-Jan-2015 1811 by 311		Batch: S38072	
<b>Mercury</b>		<b>0.53</b>	<b>0.08</b>	<b>mg/Kg</b>	
EPA 7471B	Prep: 14-Jan-2015 0834 by 302	Analyzed: 14-Jan-2015 1428 by 311		Batch: S38083	
<b>Nitrate + Nitrite as N</b>		<b>&lt; 4</b>	<b>4</b>	<b>mg/Kg</b>	
EPA 9056A	Prep: 09-Jan-2015 1059 by 07	Analyzed: 09-Jan-2015 2001 by 07		Batch: C17384	
<b>TCLP Chlorinated Herbicides By EPA 8321A</b>					
<b>2,4-D</b>		<b>&lt; 0.20</b>	<b>0.20</b>	<b>mg/l</b>	
EPA 8321A		Analyzed: 13-Jan-2015 0955 by 07		Batch: C17393	
<b>2,4,5-TP</b>		<b>&lt; 0.10</b>	<b>0.10</b>	<b>mg/l</b>	
EPA 8321A		Analyzed: 13-Jan-2015 0955 by 07		Batch: C17393	
<b>TCLP Base/Neutral and Acid Compounds By EPA 3510C, 8270D</b>					
<b>Cresols</b>		<b>&lt; 0.10</b>	<b>0.10</b>	<b>mg/l</b>	<b>D</b>
EPA 3510C, 8270D	Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1713 by 306		Batch: B9335	Dil: 10
<b>1,4-Dichlorobenzene</b>		<b>&lt; 0.050</b>	<b>0.050</b>	<b>mg/l</b>	<b>D</b>
EPA 3510C, 8270D	Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1713 by 306		Batch: B9335	Dil: 10
<b>2,4-Dinitrotoluene</b>		<b>&lt; 0.050</b>	<b>0.050</b>	<b>mg/l</b>	<b>D</b>
EPA 3510C, 8270D	Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1713 by 306		Batch: B9335	Dil: 10
<b>Hexachlorobenzene</b>		<b>&lt; 0.050</b>	<b>0.050</b>	<b>mg/l</b>	<b>D</b>
EPA 3510C, 8270D	Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1713 by 306		Batch: B9335	Dil: 10

Searcy Water and Sewer System  
 Post Office Box 1319  
 Searcy, AR 72145

**ANALYTICAL RESULTS**

AIC No. 186454-2 (Continued)

Sample Identification: South Sludge Pond 08-Jan-2015 1151

<u>Analyte</u>	<u>Result</u>	<u>RL</u>	<u>Units</u>	<u>Qualifier</u>
<b>TCLP Base/Neutral and Acid Compounds By EPA 3510C, 8270D (Continued)</b>				
<b>Hexachlorobutadiene</b> EPA 3510C, 8270D	< 0.050	0.050	mg/l	D
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1713 by 306		Batch: B9335	Dil: 10
<b>Hexachloroethane</b> EPA 3510C, 8270D	< 0.050	0.050	mg/l	D
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1713 by 306		Batch: B9335	Dil: 10
<b>Nitrobenzene</b> EPA 3510C, 8270D	< 0.050	0.050	mg/l	D
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1713 by 306		Batch: B9335	Dil: 10
<b>Pentachlorophenol</b> EPA 3510C, 8270D	< 0.050	0.050	mg/l	D
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1713 by 306		Batch: B9335	Dil: 10
<b>Pyridine</b> EPA 3510C, 8270D	< 0.050	0.050	mg/l	D
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1713 by 306		Batch: B9335	Dil: 10
<b>2,4,5-Trichlorophenol</b> EPA 3510C, 8270D	< 0.050	0.050	mg/l	D
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1713 by 306		Batch: B9335	Dil: 10
<b>2,4,6-Trichlorophenol</b> EPA 3510C, 8270D	< 0.050	0.050	mg/l	D
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1713 by 306		Batch: B9335	Dil: 10
Surrogate: 2-Fluorobiphenyl (50.0-110%) EPA 3510C, 8270D	79.3		%	
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1713 by 306		Batch: B9335	
Surrogate: 2-Fluorophenol (20.0-110%) EPA 3510C, 8270D	54.6		%	
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1713 by 306		Batch: B9335	
Surrogate: Nitrobenzene-D5 (40.0-110%) EPA 3510C, 8270D	70.3		%	
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1713 by 306		Batch: B9335	
Surrogate: Terphenyl-D14 (50.0-135%) EPA 3510C, 8270D	89.1		%	
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1713 by 306		Batch: B9335	
Surrogate: 2,4,6-Tribromophenol (40.0-125%) EPA 3510C, 8270D	73.2		%	
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1713 by 306		Batch: B9335	
<b>TCLP Volatile Organic Compounds By EPA 5030C, 8260C</b>				
<b>Benzene</b> EPA 5030C, 8260C	< 0.50	0.50	mg/l	D
Prep: 13-Jan-2015 1100 by 301	Analyzed: 13-Jan-2015 1437 by 301		Batch: V8671	Dil: 100
<b>Carbon tetrachloride</b> EPA 5030C, 8260C	< 0.20	0.20	mg/l	D
Prep: 13-Jan-2015 1100 by 301	Analyzed: 13-Jan-2015 1437 by 301		Batch: V8671	Dil: 100
<b>Chlorobenzene</b> EPA 5030C, 8260C	< 0.50	0.50	mg/l	D
Prep: 13-Jan-2015 1100 by 301	Analyzed: 13-Jan-2015 1437 by 301		Batch: V8671	Dil: 100
<b>Chloroform</b> EPA 5030C, 8260C	< 0.50	0.50	mg/l	D
Prep: 13-Jan-2015 1100 by 301	Analyzed: 13-Jan-2015 1437 by 301		Batch: V8671	Dil: 100
<b>1,2-Dichloroethane</b> EPA 5030C, 8260C	< 0.50	0.50	mg/l	D
Prep: 13-Jan-2015 1100 by 301	Analyzed: 13-Jan-2015 1437 by 301		Batch: V8671	Dil: 100
<b>1,1-Dichloroethylene</b> EPA 5030C, 8260C	< 0.50	0.50	mg/l	D
Prep: 13-Jan-2015 1100 by 301	Analyzed: 13-Jan-2015 1437 by 301		Batch: V8671	Dil: 100
<b>Methyl ethyl ketone</b> EPA 5030C, 8260C	< 1.0	1.0	mg/l	D
Prep: 13-Jan-2015 1100 by 301	Analyzed: 13-Jan-2015 1437 by 301		Batch: V8671	Dil: 100

Searcy Water and Sewer System  
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**ANALYTICAL RESULTS**

AIC No. 186454-2 (Continued)

Sample Identification: South Sludge Pond 08-Jan-2015 1151

Analyte	Result	RL	Units	Qualifier
<b>TCLP Volatile Organic Compounds By EPA 5030C, 8260C (Continued)</b>				
<b>Tetrachloroethylene</b> EPA 5030C, 8260C	< 0.50	0.50	mg/l	D
Prep: 13-Jan-2015 1100 by 301	Analyzed: 13-Jan-2015 1437 by 301		Batch: V8671	Dil: 100
<b>Trichloroethylene</b> EPA 5030C, 8260C	< 0.50	0.50	mg/l	D
Prep: 13-Jan-2015 1100 by 301	Analyzed: 13-Jan-2015 1437 by 301		Batch: V8671	Dil: 100
<b>Vinyl chloride</b> EPA 5030C, 8260C	< 0.20	0.20	mg/l	D
Prep: 13-Jan-2015 1100 by 301	Analyzed: 13-Jan-2015 1437 by 301		Batch: V8671	Dil: 100
<b>Surrogate: 4-Bromofluorobenzene (75.0-120%)</b> EPA 5030C, 8260C	96.8		%	D
Prep: 13-Jan-2015 1100 by 301	Analyzed: 13-Jan-2015 1437 by 301		Batch: V8671	Dil: 100
<b>Surrogate: Dibromofluoromethane (85.0-115%)</b> EPA 5030C, 8260C	97.4		%	D
Prep: 13-Jan-2015 1100 by 301	Analyzed: 13-Jan-2015 1437 by 301		Batch: V8671	Dil: 100
<b>Surrogate: Toluene-D8 (85.0-120%)</b> EPA 5030C, 8260C	101		%	D
Prep: 13-Jan-2015 1100 by 301	Analyzed: 13-Jan-2015 1437 by 301		Batch: V8671	Dil: 100
<b>TCLP Organochlorine Pesticides By EPA 3510C, 8081B</b>				
<b>Chlordane</b> EPA 3510C, 8081B	< 0.010	0.010	mg/l	D
Prep: 15-Jan-2015 1045 by 285	Analyzed: 15-Jan-2015 1747 by 306		Batch: G9982	Dil: 10
<b>Endrin</b> EPA 3510C, 8081B	< 0.0020	0.0020	mg/l	D
Prep: 15-Jan-2015 1045 by 285	Analyzed: 15-Jan-2015 1747 by 306		Batch: G9982	Dil: 10
<b>gamma-BHC</b> EPA 3510C, 8081B	< 0.0020	0.0020	mg/l	D
Prep: 15-Jan-2015 1045 by 285	Analyzed: 15-Jan-2015 1747 by 306		Batch: G9982	Dil: 10
<b>Heptachlor</b> EPA 3510C, 8081B	< 0.0010	0.0010	mg/l	D
Prep: 15-Jan-2015 1045 by 285	Analyzed: 15-Jan-2015 1747 by 306		Batch: G9982	Dil: 10
<b>Heptachlor epoxide</b> EPA 3510C, 8081B	< 0.0010	0.0010	mg/l	D
Prep: 15-Jan-2015 1045 by 285	Analyzed: 15-Jan-2015 1747 by 306		Batch: G9982	Dil: 10
<b>Methoxychlor</b> EPA 3510C, 8081B	< 0.0020	0.0020	mg/l	D
Prep: 15-Jan-2015 1045 by 285	Analyzed: 15-Jan-2015 1747 by 306		Batch: G9982	Dil: 10
<b>Toxaphene</b> EPA 3510C, 8081B	< 0.020	0.020	mg/l	D
Prep: 15-Jan-2015 1045 by 285	Analyzed: 15-Jan-2015 1747 by 306		Batch: G9982	Dil: 10
<b>Surrogate: Decachlorobiphenyl (30.0-135%)</b> EPA 3510C, 8081B	101		%	
Prep: 15-Jan-2015 1045 by 285	Analyzed: 15-Jan-2015 1747 by 306		Batch: G9982	
<b>Surrogate: Tetrachloro-m-xylene (25.0-140%)</b> EPA 3510C, 8081B	90.7		%	
Prep: 15-Jan-2015 1045 by 285	Analyzed: 15-Jan-2015 1747 by 306		Batch: G9982	
<b>Polychlorinated Biphenyls (PCBs) By EPA 3550C, 8082A</b>				
<b>PCB 1016</b> EPA 3550C, 8082A	< 0.092	0.092	mg/Kg	
Prep: 12-Jan-2015 1704 by 306	Analyzed: 14-Jan-2015 1137 by 306		Batch: G9976	
<b>PCB 1221</b> EPA 3550C, 8082A	< 0.092	0.092	mg/Kg	
Prep: 12-Jan-2015 1704 by 306	Analyzed: 14-Jan-2015 1137 by 306		Batch: G9976	
<b>PCB 1232</b> EPA 3550C, 8082A	< 0.092	0.092	mg/Kg	
Prep: 12-Jan-2015 1704 by 306	Analyzed: 14-Jan-2015 1137 by 306		Batch: G9976	
<b>PCB 1242</b> EPA 3550C, 8082A	< 0.092	0.092	mg/Kg	
Prep: 12-Jan-2015 1704 by 306	Analyzed: 14-Jan-2015 1137 by 306		Batch: G9976	



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**ANALYTICAL RESULTS**

AIC No. 186454-2 (Continued)

Sample Identification: South Sludge Pond 08-Jan-2015 1151

Analyte	Result	RL	Units	Qualifier
<b>Polychlorinated Biphenyls (PCBs) By EPA 3550C, 8082A (Continued)</b>				
<b>PCB 1248</b> EPA 3550C, 8082A	< 0.092	0.092	mg/Kg	
Prep: 12-Jan-2015 1704 by 306	Analyzed: 14-Jan-2015 1137 by 306		Batch: G9976	
<b>PCB 1254</b> EPA 3550C, 8082A	< 0.092	0.092	mg/Kg	
Prep: 12-Jan-2015 1704 by 306	Analyzed: 14-Jan-2015 1137 by 306		Batch: G9976	
<b>PCB 1260</b> EPA 3550C, 8082A	< 0.092	0.092	mg/Kg	
Prep: 12-Jan-2015 1704 by 306	Analyzed: 14-Jan-2015 1137 by 306		Batch: G9976	
Surrogate: Decachlorobiphenyl (40.6-189%) EPA 3550C, 8082A	126		%	
Prep: 12-Jan-2015 1704 by 306	Analyzed: 14-Jan-2015 1137 by 306		Batch: G9976	

AIC No. 186454-3

Sample Identification: Water Plant Sludge Pond 08-Jan-2015 1238

Analyte	Result	RL	Units	Qualifier
<b>TCLP: Solids</b> EPA 1311	100	0.5	%	
	Analyzed: 12-Jan-2015 1707 by 313		Batch: S37883	
<b>TCLP: Arsenic</b> EPA 3010A, 6010C	< 0.3	0.3	mg/l	D
Prep: 13-Jan-2015 1121 by 313	Analyzed: 13-Jan-2015 1553 by 311		Batch: S38078	Dil: 5
<b>TCLP: Barium</b> EPA 3010A, 6010C	0.099	0.01	mg/l	D
Prep: 13-Jan-2015 1121 by 313	Analyzed: 13-Jan-2015 1553 by 311		Batch: S38078	Dil: 5
<b>TCLP: Cadmium</b> EPA 3010A, 6010C	< 0.02	0.02	mg/l	D
Prep: 13-Jan-2015 1121 by 313	Analyzed: 13-Jan-2015 1553 by 311		Batch: S38078	Dil: 5
<b>TCLP: Chromium</b> EPA 3010A, 6010C	< 0.04	0.04	mg/l	D
Prep: 13-Jan-2015 1121 by 313	Analyzed: 13-Jan-2015 1553 by 311		Batch: S38078	Dil: 5
<b>TCLP: Lead</b> EPA 3010A, 6010C	< 0.2	0.2	mg/l	D
Prep: 13-Jan-2015 1121 by 313	Analyzed: 13-Jan-2015 1713 by 311		Batch: S38078	Dil: 5
<b>TCLP: Selenium</b> EPA 3010A, 6010C	< 0.4	0.4	mg/l	D
Prep: 13-Jan-2015 1121 by 313	Analyzed: 13-Jan-2015 1553 by 311		Batch: S38078	Dil: 5
<b>TCLP: Silver</b> EPA 3010A, 6010C	< 0.04	0.04	mg/l	D
Prep: 13-Jan-2015 1121 by 313	Analyzed: 13-Jan-2015 1553 by 311		Batch: S38078	Dil: 5
<b>TCLP: Mercury</b> EPA 7470A	< 0.008	0.008	mg/l	D
Prep: 14-Jan-2015 0833 by 302	Analyzed: 14-Jan-2015 1334 by 311		Batch: S38082	Dil: 40
<b>Total Cyanide</b> EPA 9010C, 9014	< 2	2	mg/Kg	
Prep: 09-Jan-2015 1117 by 308	Analyzed: 09-Jan-2015 1606 by 308		Batch: W50534	
<b>Total Recoverable Phenolics</b> EPA 9065	45	7	mg/Kg	
Prep: 09-Jan-2015 1118 by 308	Analyzed: 09-Jan-2015 1500 by 308		Batch: W50533	
<b>Total Solids</b> SM 2540 G 1997	7.8	0.01	wt %	
Prep: 09-Jan-2015 1459 by 302	Analyzed: 12-Jan-2015 1429 by 302		Batch: W50547	
<b>Ammonia as N</b> SM 4500-NH3 B,G 1997	130	130	mg/Kg	
Prep: 12-Jan-2015 1522 by 93	Analyzed: 12-Jan-2015 1854 by 93		Batch: W50568	
<b>Total Kjeldahl Nitrogen</b> SM 4500-Norg D 1997	5100	700	mg/Kg	
Prep: 09-Jan-2015 1705 by 308	Analyzed: 14-Jan-2015 1129 by 308		Batch: W50553	

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**ANALYTICAL RESULTS**

AIC No. 186454-3 (Continued)

Sample Identification: Water Plant Sludge Pond 08-Jan-2015 1238

<u>Analyte</u>	<u>Result</u>	<u>RL</u>	<u>Units</u>	<u>Qualifier</u>
<b>Antimony</b> EPA 3051A, 6010C Prep: 12-Jan-2015 1233 by 313	<b>&lt; 3</b> Analyzed: 13-Jan-2015 1858 by 311	<b>3</b>	<b>mg/Kg</b> Batch: S38072	
<b>Arsenic</b> EPA 3051A, 6010C Prep: 12-Jan-2015 1233 by 313	<b>22</b> Analyzed: 13-Jan-2015 1858 by 311	<b>5</b>	<b>mg/Kg</b> Batch: S38072	
<b>Beryllium</b> EPA 3051A, 6010C Prep: 12-Jan-2015 1233 by 313	<b>0.81</b> Analyzed: 13-Jan-2015 1858 by 311	<b>0.03</b>	<b>mg/Kg</b> Batch: S38072	
<b>Cadmium</b> EPA 3051A, 6010C Prep: 12-Jan-2015 1233 by 313	<b>&lt; 0.4</b> Analyzed: 13-Jan-2015 1858 by 311	<b>0.4</b>	<b>mg/Kg</b> Batch: S38072	
<b>Chromium</b> EPA 3051A, 6010C Prep: 12-Jan-2015 1233 by 313	<b>22</b> Analyzed: 13-Jan-2015 1858 by 311	<b>0.7</b>	<b>mg/Kg</b> Batch: S38072	
<b>Copper</b> EPA 3051A, 6010C Prep: 12-Jan-2015 1233 by 313	<b>40</b> Analyzed: 13-Jan-2015 1858 by 311	<b>0.6</b>	<b>mg/Kg</b> Batch: S38072	
<b>Lead</b> EPA 3051A, 6010C Prep: 12-Jan-2015 1233 by 313	<b>&lt; 4</b> Analyzed: 13-Jan-2015 1858 by 311	<b>4</b>	<b>mg/Kg</b> Batch: S38072	
<b>Molybdenum</b> EPA 3051A, 6010C Prep: 12-Jan-2015 1233 by 313	<b>1.9</b> Analyzed: 13-Jan-2015 1858 by 311	<b>0.8</b>	<b>mg/Kg</b> Batch: S38072	
<b>Nickel</b> EPA 3051A, 6010C Prep: 12-Jan-2015 1233 by 313	<b>15</b> Analyzed: 13-Jan-2015 1858 by 311	<b>1</b>	<b>mg/Kg</b> Batch: S38072	
<b>Phosphorus</b> EPA 3051A, 6010C Prep: 12-Jan-2015 1233 by 313	<b>2000</b> Analyzed: 13-Jan-2015 1858 by 311	<b>10</b>	<b>mg/Kg</b> Batch: S38072	
<b>Selenium</b> EPA 3051A, 6010C Prep: 12-Jan-2015 1233 by 313	<b>&lt; 7</b> Analyzed: 13-Jan-2015 1858 by 311	<b>7</b>	<b>mg/Kg</b> Batch: S38072	
<b>Silver</b> EPA 3051A, 6010C Prep: 12-Jan-2015 1233 by 313	<b>&lt; 0.7</b> Analyzed: 13-Jan-2015 1858 by 311	<b>0.7</b>	<b>mg/Kg</b> Batch: S38072	
<b>Thallium</b> EPA 3051A, 6010C Prep: 12-Jan-2015 1233 by 313	<b>&lt; 4</b> Analyzed: 13-Jan-2015 1858 by 311	<b>4</b>	<b>mg/Kg</b> Batch: S38072	
<b>Zinc</b> EPA 3051A, 6010C Prep: 12-Jan-2015 1233 by 313	<b>50</b> Analyzed: 13-Jan-2015 1858 by 311	<b>0.2</b>	<b>mg/Kg</b> Batch: S38072	
<b>Mercury</b> EPA 7471B Prep: 14-Jan-2015 0834 by 302	<b>&lt; 0.08</b> Analyzed: 14-Jan-2015 1436 by 311	<b>0.08</b>	<b>mg/Kg</b> Batch: S38083	
<b>Nitrate + Nitrite as N</b> EPA 9056A Prep: 09-Jan-2015 1059 by 07	<b>&lt; 7</b> Analyzed: 09-Jan-2015 2026 by 07	<b>7</b>	<b>mg/Kg</b> Batch: C17384	
<b>TCLP Chlorinated Herbicides By EPA 8321A</b>				
<b>2,4-D</b> EPA 8321A	<b>&lt; 0.20</b> Analyzed: 13-Jan-2015 0955 by 07	<b>0.20</b>	<b>mg/l</b> Batch: C17393	
<b>2,4,5-TP</b> EPA 8321A	<b>&lt; 0.10</b> Analyzed: 13-Jan-2015 0955 by 07	<b>0.10</b>	<b>mg/l</b> Batch: C17393	
<b>TCLP Base/Neutral and Acid Compounds By EPA 3510C, 8270D</b>				
<b>Cresols</b> EPA 3510C, 8270D Prep: 13-Jan-2015 0849 by 306	<b>&lt; 0.10</b> Analyzed: 13-Jan-2015 1749 by 306	<b>0.10</b>	<b>mg/l</b> Batch: B9335	<b>D</b> DII: 10

Searcy Water and Sewer System  
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**ANALYTICAL RESULTS**

AIC No. 186454-3 (Continued)

Sample Identification: Water Plant Sludge Pond 08-Jan-2015 1238

<u>Analyte</u>	<u>Result</u>	<u>RL</u>	<u>Units</u>	<u>Qualifier</u>
<b>TCLP Base/Neutral and Acid Compounds By EPA 3510C, 8270D (Continued)</b>				
<b>1,4-Dichlorobenzene</b> EPA 3510C, 8270D	<b>&lt; 0.050</b>	<b>0.050</b>	<b>mg/l</b>	<b>D</b>
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1749 by 306		Batch: B9335	Dil: 10
<b>2,4-Dinitrotoluene</b> EPA 3510C, 8270D	<b>&lt; 0.050</b>	<b>0.050</b>	<b>mg/l</b>	<b>D</b>
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1749 by 306		Batch: B9335	Dil: 10
<b>Hexachlorobenzene</b> EPA 3510C, 8270D	<b>&lt; 0.050</b>	<b>0.050</b>	<b>mg/l</b>	<b>D</b>
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1749 by 306		Batch: B9335	Dil: 10
<b>Hexachlorobutadiene</b> EPA 3510C, 8270D	<b>&lt; 0.050</b>	<b>0.050</b>	<b>mg/l</b>	<b>D</b>
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1749 by 306		Batch: B9335	Dil: 10
<b>Hexachloroethane</b> EPA 3510C, 8270D	<b>&lt; 0.050</b>	<b>0.050</b>	<b>mg/l</b>	<b>D</b>
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1749 by 306		Batch: B9335	Dil: 10
<b>Nitrobenzene</b> EPA 3510C, 8270D	<b>&lt; 0.050</b>	<b>0.050</b>	<b>mg/l</b>	<b>D</b>
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1749 by 306		Batch: B9335	Dil: 10
<b>Pentachlorophenol</b> EPA 3510C, 8270D	<b>&lt; 0.050</b>	<b>0.050</b>	<b>mg/l</b>	<b>D</b>
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1749 by 306		Batch: B9335	Dil: 10
<b>Pyridine</b> EPA 3510C, 8270D	<b>&lt; 0.050</b>	<b>0.050</b>	<b>mg/l</b>	<b>D</b>
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1749 by 306		Batch: B9335	Dil: 10
<b>2,4,5-Trichlorophenol</b> EPA 3510C, 8270D	<b>&lt; 0.050</b>	<b>0.050</b>	<b>mg/l</b>	<b>D</b>
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1749 by 306		Batch: B9335	Dil: 10
<b>2,4,6-Trichlorophenol</b> EPA 3510C, 8270D	<b>&lt; 0.050</b>	<b>0.050</b>	<b>mg/l</b>	<b>D</b>
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1749 by 306		Batch: B9335	Dil: 10
<b>Surrogate: 2-Fluorobiphenyl (50.0-110%)</b> EPA 3510C, 8270D	<b>83.9</b>		<b>%</b>	
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1749 by 306		Batch: B9335	
<b>Surrogate: 2-Fluorophenol (20.0-110%)</b> EPA 3510C, 8270D	<b>59.4</b>		<b>%</b>	
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1749 by 306		Batch: B9335	
<b>Surrogate: Nitrobenzene-D5 (40.0-110%)</b> EPA 3510C, 8270D	<b>76.8</b>		<b>%</b>	
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1749 by 306		Batch: B9335	
<b>Surrogate: Terphenyl-D14 (50.0-135%)</b> EPA 3510C, 8270D	<b>92.6</b>		<b>%</b>	
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1749 by 306		Batch: B9335	
<b>Surrogate: 2,4,6-Tribromophenol (40.0-125%)</b> EPA 3510C, 8270D	<b>76.8</b>		<b>%</b>	
Prep: 13-Jan-2015 0849 by 306	Analyzed: 13-Jan-2015 1749 by 306		Batch: B9335	
<b>TCLP Volatile Organic Compounds By EPA 5030C, 8260C</b>				
<b>Benzene</b> EPA 5030C, 8260C	<b>&lt; 0.50</b>	<b>0.50</b>	<b>mg/l</b>	<b>D</b>
Prep: 13-Jan-2015 1100 by 301	Analyzed: 13-Jan-2015 1512 by 301		Batch: V8671	Dil: 100
<b>Carbon tetrachloride</b> EPA 5030C, 8260C	<b>&lt; 0.20</b>	<b>0.20</b>	<b>mg/l</b>	<b>D</b>
Prep: 13-Jan-2015 1100 by 301	Analyzed: 13-Jan-2015 1512 by 301		Batch: V8671	Dil: 100
<b>Chlorobenzene</b> EPA 5030C, 8260C	<b>&lt; 0.50</b>	<b>0.50</b>	<b>mg/l</b>	<b>D</b>
Prep: 13-Jan-2015 1100 by 301	Analyzed: 13-Jan-2015 1512 by 301		Batch: V8671	Dil: 100
<b>Chloroform</b> EPA 5030C, 8260C	<b>&lt; 0.50</b>	<b>0.50</b>	<b>mg/l</b>	<b>D</b>
Prep: 13-Jan-2015 1100 by 301	Analyzed: 13-Jan-2015 1512 by 301		Batch: V8671	Dil: 100



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March 27, 2015

Control No. 188648

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**ANALYTICAL RESULTS**

**AIC No. 188648-1**

**Sample Identification: L1061-049529 0315097 North Pond 17-Mar-2015 1310**

<b>Analyte</b>		<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Qualifier</b>
<b>pH</b>		<b>6.6</b>		<b>Units</b>	<b>H</b>
EPA 9045C	Prep: 20-Mar-2015 1220 by 93	Analyzed: 20-Mar-2015 1330 by 93		Batch: W51289	
<b>Total Solids</b>		<b>9.7</b>	<b>0.01</b>	<b>wt %</b>	
SM 2540 G 1997	Prep: 24-Mar-2015 1642 by 271	Analyzed: 25-Mar-2015 0922 by 271		Batch: W51332	
<b>Calcium</b>		<b>14000</b>	<b>100</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 23-Mar-2015 0933 by 313	Analyzed: 26-Mar-2015 1658 by 302		Batch: S38537	
<b>Magnesium</b>		<b>2400</b>	<b>3</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 23-Mar-2015 0933 by 313	Analyzed: 25-Mar-2015 1813 by 315		Batch: S38537	
<b>Potassium</b>		<b>1100</b>	<b>100</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 23-Mar-2015 0933 by 313	Analyzed: 25-Mar-2015 1813 by 315		Batch: S38537	
<b>Sodium</b>		<b>710</b>	<b>100</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 23-Mar-2015 0933 by 313	Analyzed: 25-Mar-2015 1813 by 315		Batch: S38537	

**AIC No. 188648-2**

**Sample Identification: L1061-049529 0315098 South Pond 17-Mar-2015 1315**

<b>Analyte</b>		<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Qualifier</b>
<b>pH</b>		<b>6.8</b>		<b>Units</b>	<b>H</b>
EPA 9045C	Prep: 20-Mar-2015 1220 by 93	Analyzed: 20-Mar-2015 1330 by 93		Batch: W51289	
<b>Total Solids</b>		<b>5.2</b>	<b>0.01</b>	<b>wt %</b>	
SM 2540 G 1997	Prep: 24-Mar-2015 1642 by 271	Analyzed: 25-Mar-2015 0922 by 271		Batch: W51332	
<b>Calcium</b>		<b>17000</b>	<b>100</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 23-Mar-2015 0933 by 313	Analyzed: 26-Mar-2015 1702 by 302		Batch: S38537	
<b>Magnesium</b>		<b>2400</b>	<b>3</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 23-Mar-2015 0933 by 313	Analyzed: 25-Mar-2015 1825 by 315		Batch: S38537	
<b>Potassium</b>		<b>1700</b>	<b>100</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 23-Mar-2015 0933 by 313	Analyzed: 25-Mar-2015 1825 by 315		Batch: S38537	
<b>Sodium</b>		<b>970</b>	<b>100</b>	<b>mg/Kg</b>	
EPA 3051A, 6010C	Prep: 23-Mar-2015 0933 by 313	Analyzed: 25-Mar-2015 1825 by 315		Batch: S38537	

analytical services provided by:





BOARD MEMBERS  
Ronnie McFarland  
Mel Sansom  
Steve Lightle  
Donnie Miller  
Reynie Rutledge



GENERAL MANAGER  
Daniel K. Dawson  
  
ASSISTANT GENERAL  
MANAGER  
Tim W. Cleveland

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**OWNER'S CERTIFICATION STATEMENT**

40 CFR 503.17 (a)(4)

- (A) The biosolids concentration of each pollutant listed in Table 3 of Section 503.13 is as indicated in Table 1 of the project specifications. As noted, the pollutant concentrations of the biosolids do not exceed the Class B ceiling concentrations in Table 3 of Section 503.13.
- (B) Certification Statement
- "I certify, under penalty of law, that the information that will be used to determine compliance with the Class B pathogen requirements in Section 503.32(b) and the vector attraction reduction requirement in Section 503.33(b)(1) was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."
- (C) The Class B pathogen requirements in Section 503.32(b)(3) are met using Option 1 in Appendix B to Part 503, "Aerobic Digestion."
- (D) The vector attraction reduction requirement shall be met using Section 503.33(b)(1) when bulk biosolids are applied to agricultural land, forest, a public contact site, or a reclamation site.

A handwritten signature in blue ink, appearing to read "D. Dawson", is written over a horizontal line.

For Searcy Water Utilities  
Daniel K. Dawson, General Manager

## SOIL TEST RESULTS

**SOIL ANALYSIS**

Client : Nebo Services, Inc. Mr. Jeff Henry 6009 Hwy 36 W Rose Bud AR 72137	Grower : White County-Searcy Delbert Miesen	Report No: 15-065-0601 Cust No: 07490 Date Printed: 03/09/2015 Date Received : 03/06/2015 PO: Page : 3 of 10
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Lab Number : 16904

Field Id :

Sample Id : DM2-1

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity	
			Very Low	Low	Medium	Optimum	Very High		
Soil pH	1:1	6.4						<b>7.0 meq/100g</b>	
Buffer pH								<b>%Saturation</b>	
Phosphorus (P)	M3	6 mg/kg						<b>%sat</b>	<b>meq</b>
Potassium (K)	M3	96 mg/kg						K	3.5 0.2
Calcium (Ca)	M3	1111 mg/kg						Ca	79.4 5.6
Magnesium (Mg)	M3	68 mg/kg						Mg	8.1 0.6
Sulfur (S)								H	9.0 0.6
Boron (B)								Na	0.2 0
Copper (Cu)	M3	0.4 mg/kg						<b>K/Mg Ratio: 0.33</b>	
Iron (Fe)								<b>Ca/Mg Ratio: 9.80</b>	
Manganese (Mn)									
Zinc (Zn)	M3	1.0 mg/kg							
Sodium (Na)	M3	4 mg/kg							
Soluble Salts	SS1:2	0.08 dS/m							
Organic Matter	LOI	2.7 % ENR 98							
Nitrate Nitrogen	NO3N	2 mg/kg							

**SOIL FERTILITY GUIDELINES**

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :

**Nitrate-nitrogen analysis will detect levels no lower than 2 ppm nitrate-nitrogen. Results that indicate undetected levels of nitrate-nitrogen will display 2 ppm or 4 lb/acre.**

**SOIL ANALYSIS**

Client : Nebo Services, Inc. Mr. Jeff Henry 6009 Hwy 36 W Rose Bud AR 72137	Grower : White County-Searcy Delbert Miesen	Report No: 15-065-0601 Cust No: 07490 Date Printed: 03/09/2015 Date Received : 03/06/2015 PO: Page : 4 of 10
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Lab Number : 16905

Field Id :

Sample Id : DM2-2

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity	
			Very Low	Low	Medium	Optimum	Very High		
Soil pH	1:1	6.5						<b>7.0 meq/100g</b>	
Buffer pH								<b>%Saturation</b>	
Phosphorus (P)	M3	5 mg/kg						<b>%sat</b>	<b>meq</b>
Potassium (K)	M3	56 mg/kg						K	2.1 0.1
Calcium (Ca)	M3	1161 mg/kg						Ca	82.9 5.8
Magnesium (Mg)	M3	59 mg/kg						Mg	7.0 0.5
Sulfur (S)								H	7.5 0.5
Boron (B)								Na	0.3 0
Copper (Cu)	M3	0.3 mg/kg						<b>K/Mg Ratio: 0.20</b>	
Iron (Fe)								<b>Ca/Mg Ratio: 11.84</b>	
Manganese (Mn)									
Zinc (Zn)	M3	0.6 mg/kg							
Sodium (Na)	M3	5 mg/kg							
Soluble Salts	SS1:2	0.06 dS/m							
Organic Matter	LOI	2.4 % ENR 92							
Nitrate Nitrogen	NO3N	2 mg/kg							

**SOIL FERTILITY GUIDELINES**

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :

**Nitrate-nitrogen analysis will detect levels no lower than 2 ppm nitrate-nitrogen. Results that indicate undetected levels of nitrate-nitrogen will display 2 ppm or 4 lb/acre.**



**SOIL ANALYSIS**

Client : Nebo Services, Inc. Mr. Jeff Henry 6009 Hwy 36 W Rose Bud AR 72137	Grower : White County-Searcy Delbert Miesen	Report No: 15-065-0601 Cust No: 07490 Date Printed: 03/09/2015 Date Received : 03/06/2015 PO: Page : 5 of 10
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Lab Number : 16906

Field Id :

Sample Id : DM3-1

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity	
			Very Low	Low	Medium	Optimum	Very High		
Soil pH	1:1	4.8						<b>3.9 meq/100g</b>	
Buffer pH	BPH	6.75						<b>%Saturation</b>	
Phosphorus (P)	M3	27 mg/kg						<b>%sat</b>	<b>meq</b>
Potassium (K)	M3	195 mg/kg						K	12.8 0.5
Calcium (Ca)	M3	198 mg/kg						Ca	25.4 1.0
Magnesium (Mg)	M3	63 mg/kg						Mg	13.5 0.5
Sulfur (S)								H	46.4 1.8
Boron (B)								Na	0.7 0
Copper (Cu)	M3	0.1 mg/kg						<b>K/Mg Ratio: 1.00</b>	
Iron (Fe)								<b>Ca/Mg Ratio: 1.88</b>	
Manganese (Mn)									
Zinc (Zn)	M3	1.1 mg/kg							
Sodium (Na)	M3	6 mg/kg							
Soluble Salts	SS1:2	0.03 dS/m							
Organic Matter	LOI	2.8 % ENR 100							
Nitrate Nitrogen	NO3N	2 mg/kg							

**SOIL FERTILITY GUIDELINES**

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :

**Nitrate-nitrogen analysis will detect levels no lower than 2 ppm nitrate-nitrogen. Results that indicate undetected levels of nitrate-nitrogen will display 2 ppm or 4 lb/acre.**

**SOIL ANALYSIS**

Client : Nebo Services, Inc. Mr. Jeff Henry 6009 Hwy 36 W Rose Bud AR 72137	Grower : White County-Searcy Delbert Miesen	Report No: 15-065-0601 Cust No: 07490 Date Printed: 03/09/2015 Date Received : 03/06/2015 PO: Page : 6 of 10
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Lab Number : 16907

Field Id :

Sample Id : DM3-2

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity		
			Very Low	Low	Medium	Optimum	Very High			
Soil pH	1:1	5.9						<b>5.5 meq/100g</b>		
Buffer pH	BPH	6.82						<b>%Saturation</b>		
Phosphorus (P)	M3	7 mg/kg						<b>%sat</b>	<b>meq</b>	
Potassium (K)	M3	29 mg/kg						K	1.4	0.1
Calcium (Ca)	M3	793 mg/kg						Ca	72.1	4.0
Magnesium (Mg)	M3	30 mg/kg						Mg	4.5	0.3
Sulfur (S)								H	20.8	1.1
Boron (B)								Na	0.4	0
Copper (Cu)	M3	0.3 mg/kg						<b>K/Mg Ratio: 0.33</b>		
Iron (Fe)								<b>Ca/Mg Ratio: 16.02</b>		
Manganese (Mn)										
Zinc (Zn)	M3	0.6 mg/kg								
Sodium (Na)	M3	5 mg/kg								
Soluble Salts	SS1:2	0.04 dS/m								
Organic Matter	LOI	2.5 % ENR 94								
Nitrate Nitrogen	NO3N	2 mg/kg								

**SOIL FERTILITY GUIDELINES**

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :

**Nitrate-nitrogen analysis will detect levels no lower than 2 ppm nitrate-nitrogen. Results that indicate undetected levels of nitrate-nitrogen will display 2 ppm or 4 lb/acre.**

**SOIL ANALYSIS**

Client : Nebo Services, Inc. Mr. Jeff Henry 6009 Hwy 36 W Rose Bud AR 72137	Grower : White County-Searcy Delbert Miesen	Report No: 15-065-0601 Cust No: 07490 Date Printed: 03/09/2015 Date Received : 03/06/2015 PO: Page : 7 of 10
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Lab Number : 16908

Field Id :

Sample Id : DM3-3

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity		
			Very Low	Low	Medium	Optimum	Very High	%sat	meq	
Soil pH	1:1	6.4						<b>5.0 meq/100g</b>		
Buffer pH								<b>%Saturation</b>		
Phosphorus (P)	M3	4 mg/kg						K	1.6	0.1
Potassium (K)	M3	32 mg/kg						Ca	84.9	4.2
Calcium (Ca)	M3	849 mg/kg						Mg	4.3	0.2
Magnesium (Mg)	M3	26 mg/kg						H	9.0	0.5
Sulfur (S)								Na	0.5	0
Boron (B)								<b>K/Mg Ratio: 0.50</b>		
Copper (Cu)	M3	0.3 mg/kg						<b>Ca/Mg Ratio: 19.74</b>		
Iron (Fe)										
Manganese (Mn)										
Zinc (Zn)	M3	0.5 mg/kg								
Sodium (Na)	M3	6 mg/kg								
Soluble Salts	SS1:2	0.05 dS/m								
Organic Matter	LOI	2.4 % ENR 92								
Nitrate Nitrogen	NO3N	2 mg/kg								

**SOIL FERTILITY GUIDELINES**

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :

**Nitrate-nitrogen analysis will detect levels no lower than 2 ppm nitrate-nitrogen. Results that indicate undetected levels of nitrate-nitrogen will display 2 ppm or 4 lb/acre.**

**SOIL ANALYSIS**

Client : Nebo Services, Inc. Mr. Jeff Henry 6009 Hwy 36 W Rose Bud AR 72137	Grower : White County-Searcy Delbert Miesen	Report No: 15-065-0601 Cust No: 07490 Date Printed: 03/09/2015 Date Received : 03/06/2015 PO: Page : 8 of 10
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Lab Number : 16910

Field Id :

Sample Id : DM4-1

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity	
			Very Low	Low	Medium	Optimum	Very High		
Soil pH	1:1	5.9						<b>4.4 meq/100g</b>	
Buffer pH	BPH	6.84						<b>%Saturation</b>	
Phosphorus (P)	M3	9 mg/kg						%sat	meq
Potassium (K)	M3	24 mg/kg						K	1.4 0.1
Calcium (Ca)	M3	576 mg/kg						Ca	65.5 2.9
Magnesium (Mg)	M3	57 mg/kg						Mg	10.8 0.5
Sulfur (S)								H	20.8 0.9
Boron (B)								Na	0.9 0
Copper (Cu)	M3	0.2 mg/kg						<b>K/Mg Ratio: 0.20</b>	
Iron (Fe)								<b>Ca/Mg Ratio: 6.06</b>	
Manganese (Mn)									
Zinc (Zn)	M3	1.6 mg/kg							
Sodium (Na)	M3	9 mg/kg							
Soluble Salts	SS1:2	0.04 dS/m							
Organic Matter	LOI	1.9 % ENR 82							
Nitrate Nitrogen	NO3N	2 mg/kg							

**SOIL FERTILITY GUIDELINES**

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :

**Nitrate-nitrogen analysis will detect levels no lower than 2 ppm nitrate-nitrogen. Results that indicate undetected levels of nitrate-nitrogen will display 2 ppm or 4 lb/acre.**

**SOIL ANALYSIS**

Client : Nebo Services, Inc. Mr. Jeff Henry 6009 Hwy 36 W Rose Bud AR 72137	Grower : White County-Searcy Delbert Miesen	Report No: 15-065-0601 Cust No: 07490 Date Printed: 03/09/2015 Date Received : 03/06/2015 PO: Page : 9 of 10
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Lab Number : 16911

Field Id :

Sample Id : DM4-2

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity	
			Very Low	Low	Medium	Optimum	Very High		
Soil pH	1:1	5.2						<b>4.9 meq/100g</b>	
Buffer pH	BPH	6.76						<b>%Saturation</b>	
Phosphorus (P)	M3	5 mg/kg						%sat	meq
Potassium (K)	M3	51 mg/kg						K	2.7 0.1
Calcium (Ca)	M3	497 mg/kg						Ca	50.7 2.5
Magnesium (Mg)	M3	68 mg/kg						Mg	11.6 0.6
Sulfur (S)								H	34.6 1.7
Boron (B)								Na	0.8 0
Copper (Cu)	M3	0.1 mg/kg						<b>K/Mg Ratio: 0.17</b>	
Iron (Fe)								<b>Ca/Mg Ratio: 4.37</b>	
Manganese (Mn)									
Zinc (Zn)	M3	0.7 mg/kg							
Sodium (Na)	M3	9 mg/kg							
Soluble Salts	SS1:2	0.05 dS/m							
Organic Matter	LOI	2.0 % ENR 84							
Nitrate Nitrogen	NO3N	2 mg/kg							

**SOIL FERTILITY GUIDELINES**

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :

**Nitrate-nitrogen analysis will detect levels no lower than 2 ppm nitrate-nitrogen. Results that indicate undetected levels of nitrate-nitrogen will display 2 ppm or 4 lb/acre.**



**SOIL ANALYSIS**

Client : Nebo Services, Inc. Mr. Jeff Henry 6009 Hwy 36 W Rose Bud AR 72137	Grower : White County-Searcy Delbert Miesen	Report No: 15-065-0601 Cust No: 07490 Date Printed: 03/09/2015 Date Received : 03/06/2015 PO: Page : 10 of 10
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Lab Number : 16912

Field Id :

Sample Id : DM5-1

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity	
			Very Low	Low	Medium	Optimum	Very High		
Soil pH	1:1	5.4						<b>4.4 meq/100g</b>	
Buffer pH	BPH	6.80						<b>%Saturation</b>	
Phosphorus (P)	M3	5 mg/kg						%sat	meq
Potassium (K)	M3	49 mg/kg						K	2.9 0.1
Calcium (Ca)	M3	490 mg/kg						Ca	55.7 2.5
Magnesium (Mg)	M3	68 mg/kg						Mg	12.9 0.6
Sulfur (S)								H	28.8 1.3
Boron (B)								Na	0.8 0
Copper (Cu)	M3	0.1 mg/kg						<b>K/Mg Ratio: 0.17</b>	
Iron (Fe)								<b>Ca/Mg Ratio: 4.32</b>	
Manganese (Mn)									
Zinc (Zn)	M3	0.7 mg/kg							
Sodium (Na)	M3	8 mg/kg							
Soluble Salts	SS1:2	0.05 dS/m							
Organic Matter	LOI	2.2 % ENR 88							
Nitrate Nitrogen	NO3N	2 mg/kg							

**SOIL FERTILITY GUIDELINES**

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

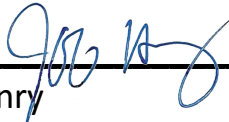
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Comments :

**Nitrate-nitrogen analysis will detect levels no lower than 2 ppm nitrate-nitrogen. Results that indicate undetected levels of nitrate-nitrogen will display 2 ppm or 4 lb/acre.**

## Certification of Annual Report

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties of submitting false information, including the possibility of fine and imprisonment for knowing violations.”

By:   
Jeff Henry  
Vice President  
Nebo Services, Inc.

Date: 3/17/16



**NEBO**  
SERVICES

## **2016 Annual Report**

**Permit No. 5243-W**  
**AFIN: 73-01260**  
**White County**

**April 13, 2017**

**Report Prepared By:**

Billy C. Staton, P.E.  
P.O. Box 981  
Russellville, AR 72811  
(479) 264-9147

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## LAND APPLICATION RECORDS

# FIELD REPORTS W/ LOADING RATE CALCULATIONS



**BIOSOLIDS ANALYTICAL INFORMATION**

**GENERATOR CERTIFICATION STATEMENTS**

## SOIL TEST RESULTS

## Certification of Annual Report

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties of submitting false information, including the possibility of fine and imprisonment for knowing violations.”

By: \_\_\_\_\_

Jeff Henry  
Vice President  
Nebo Services, Inc.

Date: 4/13/17

# ADEQ

ARKANSAS  
Department of Environmental Quality

July 30, 2019

Mr. Daniel Dawson, General Manager  
Searcy Board of Public Utilities  
P.O. Box 1319  
Searcy, AR 72145

RE: Response to Inspection      Permit No.: AR0021601  
AFIN: 73-00055

Dear Mr. Dawson:

I have reviewed the response pertaining to my May 7, 2019 inspection of the Searcy Waste Water Treatment Plant. The information provided sufficiently addressed the violations referenced in my inspection report. At this time, the Department has no further comment concerning this particular inspection. Acceptance of this response by the Department does not preclude any future enforcement action deemed necessary at this site or any other site.

If we need further information concerning this matter, we will contact you. Thank you for your attention to this matter. Should you have any questions, feel free to contact me at 501-682-0659 or you may e-mail me at [bolenbaugh@adeq.state.ar.us](mailto:bolenbaugh@adeq.state.ar.us).

Sincerely,



Jason Bolenbaugh  
Compliance Branch Manager  
Office of Water Quality

CC: Mr. Jimmy Smith, Wastewater Plant Manager, [jsmith67@cablelynx.com](mailto:jsmith67@cablelynx.com)