

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY
MONTHLY MONITORING REPORT FOR DECENTRALIZED WASTEWATER TREATMENT FACILITIES VIA DRIP IRRIGATION

| |
|-------------------------------------|
| PERMITTEE NAME |
| City of Cave Springs |
| PERMITTEE ADDRESS |
| PO. Box 36 Cave Springs AR 72718 |

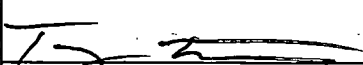
| |
|------------------------------|
| FACILITY NAME (IF DIFFERENT) |
| Plant #2 |
| FACILITY ADDRESS |
| 498 Pebble Beach dr |

| |
|------------|
| PERMIT NO. |
| 4893-WR-3 |
| AFIN NO. |
| 04-01642 |

MAKE ADDITIONAL COPIES OF THIS FORM FOR FUTURE USE. SUBMIT LAB ANALYSES WITH THIS FORM.

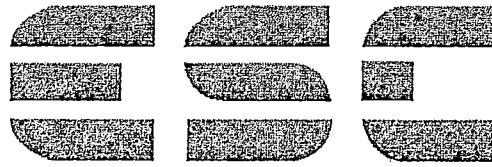
| | |
|---------------------------------------|---------------|
| WASTEWATER EFFLUENT MONITORING PERIOD | |
| MM/DD/YYYY | MM/DD/YYYY |
| FROM 01/01/2017 | TO 01/31/2017 |

| TREATED WASTEWATER EFFLUENT SAMPLING | | | | | | |
|---|----------|--------------------|-----------------------------|-------------------|-----------------------|--------------------------|
| PARAMETER | | PERMIT REQUIREMENT | SAMPLE MEASUREMENT | UNITS | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
| PHOSPHOROUS, TOTAL (AS P) GROSS VALUE | EFFLUENT | ***** | 6.1 | MG/L | ONCE/MONTH | GRAB |
| CBOD, 5-DAY (20 DEG. C) EFFLUENT GROSS VALUE | | --- | 7.5 | MG/L | ONCE/MONTH | GRAB |
| PH EFFLUENT GROSS VALUE | | 6 to 9 | 7.6 | S.U. | ONCE/MONTH | GRAB |
| SOLIDS, TOTAL SUSPENDED EFFLUENT GROSS VALUE | | --- | 7.0 | MG/L | ONCE/MONTH | GRAB |
| COLIFORM, FECAL GENERAL EFFLUENT GROSS VALUE | | --- | 14200 1/9/17 572 1/19/17 | N/100 ML | ONCE/MONTH | GRAB |
| NITROGEN, TOTAL KJELDAHL (AS TKN) EFFLUENT GROSS VALUE | | ***** | 33.60 | MG/L | ONCE/MONTH | GRAB |
| NITROGEN, AMMONIA TOTAL (AS NH ₃ -N) EFFLUENT GROSS VALUE | | ***** | 31.6 | MG/L | ONCE/MONTH | GRAB |
| NITROGEN, NITRATE + NITRITE (AS NO ₃ -N + NO ₂ -N) EFFLUENT GROSS VALUE | | ***** | 42.7 | MG/L | ONCE/MONTH | GRAB |
| PLANT AVAILABLE NITROGEN (AS PAN) CALCULATED VALUE | | | 74.9 | MG/L | ONCE/MONTH | GRAB |
| FLOW, THRU CONDUIT OR TREATMENT UNIT EFFLUENT GROSS VALUE | | ***** | MONTHLY TOTAL 1.87 | DAILY MAX .088 | MGD | ONCE/MONTH TOTAL FLOW |

| | | | | |
|--|---|---|--------------|------------|
| NAME/TITLE PRINCIPAL EXECUTIVE OFFICER | I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. |  SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | TELEPHONE | DATE |
| TYPED OR PRINTED | | | 479 295-3013 | 02/01/2017 |
| | | | AREA CODE | NUMBER |

COMMENTS AND EXPLANATION OF VIOLATIONS (Reference all attachments here)
 Lost power to our compressors @ aeration chambers, Motors failed to restart. Problem has been addressed and resolved. Pulled additional samples to assure that we were back within our permit limitations.

Environmental Services Company, Inc.
 Northwest Arkansas
 1107 Century Street
 Springdale, Arkansas 72762
 website: www.esclabs.com



Corporate Office, Little Rock, Arkansas
 501-221-2565

Carlsbad, New Mexico
 575-887-1ESC

Phone: 479-750-1170 Fax: 479-750-1172

CHAIN OF CUSTODY

| Client Information | | | | Project Information | | | | | | Requested Parameters | | | | | | | | | | |
|---|---------------|---------|-------------------|---|--------|---------------------|------------|--|------------------------------|----------------------------------|--------------------|---|--------------------------------------|----------------------------------|--|--|--|--|--|--|
| Company Name: Cave Springs Plant 2 | | | | Permit/Project #: | | | | | | pH(23) | Fecal Coliform(43) | CBOD(70), TSS(28), NO2(19) | NH3(15.A), P(25), TKN(16.A), NO3(18) | PAN(99.99), %Solids(82) | | | | | | |
| Address: PO BOX 5 | | | | Purchase Order #: | | | | | | | | | | | | | | | | |
| Cave Springs 72718 | | | | Sampler Name(s): | | | | | | | | | | | | | | | | |
| Telephone: 479 248-1040 | | | | and Signature(s): | | | | | | | | | | | | | | | | |
| FAX: | | | | | | | | | | | | | | | | | | | | |
| ESC Client Number: 2379 | | | | | | | | | | | | | | | | | | | | |
| Sample Identification | | | Sample Collection | | | Sample Containers | | | | | | | | | | | | | | |
| Identification | ESC Control # | Date | Time | Type | Matrix | Type | Volume | Preservative | # | | | | | | | | | | | |
| Effluent Diverter Box | | 1/19/17 | | Grab | Water | Teflon | 150 ml | none | 1 | | | | | | | | | | | |
| | 1701020313 | 1/19/17 | 1333 | Grab | Water | whirlpak | 300 ml | none/ice | 1 | | X | | | | | | | | | |
| | | | | Grab | Water | Plastic | 1 qt | none/ice | 1 | | | | | | | | | | | |
| | | | | Grab | Water | Plastic | 8 oz | H ₂ SO ₄ , pH <2 | 1 | | | | | | | | | | | |
| Relinquished By: (Signature and Printed Name) | | Date | Time | Received By: (Signature and Printed Name) | | | | Date | Time | Custody Seals: | | Used? <input checked="" type="checkbox"/> | | Intact? <input type="checkbox"/> | | | | | | |
| Relinquished By: (Signature and Printed Name) | | Date | Time | Received By: (Signature and Printed Name) | | | | Date | Time | Turnaround: | | Regular <input checked="" type="checkbox"/> | | Special <input type="checkbox"/> | | | | | | |
| Relinquished By: (Signature and Printed Name) | | Date | Time | Received for Lab By: (Signature and Printed Name) | | | | Date | Time | Were samples properly preserved: | | Yes <input checked="" type="checkbox"/> | | No <input type="checkbox"/> | | | | | | |
| Comments: | | | | | | FLOW DATA | Field Test | Time | Analyst | Result | Result | Units | | | | | | | | |
| | | | | | | Analyst: | pH: | | | | | | | | | | | | | |
| | | | | | | Time: | Temp.: | | | | | °C | | °F | | | | | | |
| | | | | | | Reading: | DO: | | | | | | | | | | | | | |
| | | | | | | Units: | Debris: | | | | | | | | | | | | | |
| Cool all samples to 6 degrees C. | | | | | | Chlorinated? Yes No | | | This Document is Page 1 of 1 | | | | | | | | | | | |

Environmental Services Company, Inc.

Corporate Office
 13715 West Markham
 Little Rock, AR 72211
 Tel. (501)221-2565 Fax (501)221-1341

Northwest Arkansas Branch
 1107 Century Avenue
 Springdale, AR 72762
 Tel. (479)750-1170 Fax (479)750-1172

Control Number: 1701020343
 Customer Name : CAVE SPRINGS, CITY OF OUTFALL 2
 Customer/Permit No. : 2379 / 4893-WR-2 002
 Report Date : 01/20/17

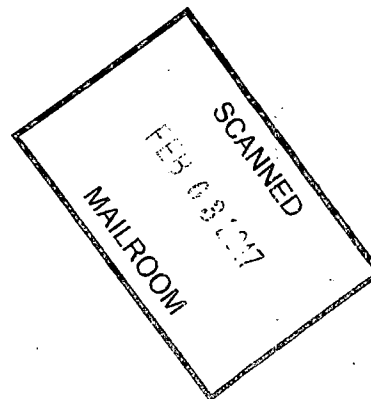
Sample Date : 01/19/17
 Sample Time : 1323
 Sample Type : GRAB
 Sample From : EFFLUENT DIVERTER BX

Collected By: AU
 Delivery By : AU
 Work Order :
 Purchase Order :

Laboratory Analysis

| Analysis | | | Result | Notes | Quantity | Method |
|----------|------|-----|--------------------------|------------|----------|----------------|
| Date | Time | By | | | | |
| 01/19 | 1455 | JCB | Coliform, Fecal | 572 /100ml | | SM 9222 D 1997 |
| 01/19 | 1323 | AEU | Sample Collection/Travel | 1 each | | |

| Quality Assurance | |
|-------------------|-----------|
| Precision | Accuracy |
| % RPD | % Recover |
| 22.22 | N/A |

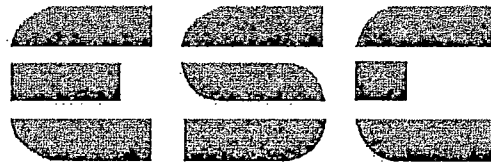


* QA data shown is from a different sample or standard on the same date.

All equipment used is checked and/or calibrated daily. All NPDES testing is conducted in accordance with 40 CFR Part 136. A minimum of 10% spiked and duplicate samples is run on each parameter where applicable for Quality Assurance purposes. Quality Assurance Plan on file with Arkansas Department of Environmental Quality. Analysis time indicates the time of the start of the analytical batch in which the specific sample was included.

Signature Richard Brown
 Environmental Services Co., Inc.

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CHAIN OF CUSTODY

| Client Information | | | | Project Information | | | | | | | Requested Parameters | | | | | | | | | | | | |
|---|---------------|-------------------|------|---|--------|-------------------|---------------------|--|----------------------------------|--|----------------------|-------------------------------------|----------------------------|--------------------------------------|-------------------------|---|--|--|--|--|--|--|--|
| Company Name: Cave Springs Plant 2 | | | | Permit/Project #: | | | | | | | pH(23) | Fecal Coliform(43) | CBOD(70), TSS(28), NO2(19) | NH3(15.A), P(25), TKN(16.A), NO3(18) | PAN(99.99), %Solids(82) | | | | | | | | |
| Address: PO BOX 5 | | | | Purchase Order #: | | | | | | | | | | | | | | | | | | | |
| Cave Springs 72718 | | | | Sampler Name(s): <i>Amber Underwood</i> | | | | | | | | | | | | | | | | | | | |
| Telephone: 479 248-1040 | | | | and Signature(s): <i>[Signature]</i> | | | | | | | | | | | | | | | | | | | |
| FAX: | | | | | | | | | | | | | | | | | | | | | | | |
| ESC Client Number: 2379 | | | | | | | | | | | | | | | | | | | | | | | |
| Sample Identification | | Sample Collection | | | | Sample Containers | | | | | | | | | | | | | | | | | |
| Identification | ESC Control # | Date | Time | Type | Matrix | Type | Volume | Preservative | # | | | | | | | | | | | | | | |
| Effluent Diverter Box | 1708020303 | 11/9/17 | 1201 | Grab | Water | Teflon | 150 ml | none | 1 | X | | | | | | | | | | | | | |
| | | | | Grab | Water | whirlpak | 300 ml | none/ice | 1 | | X | | | | | | | | | | | | |
| | | | | Grab | Water | Plastic | 1 qt | none/ice | 1 | | | X | | | | X | | | | | | | |
| | | | | Grab | Water | Plastic | 8 oz | H ₂ SO ₄ , pH <2 | 1 | | | | X | | | | | | | | | | |
| Relinquished By: (Signature and Printed Name) | | Date | Time | Received By: (Signature and Printed Name) | | | Date | Time | Custody Seals: | | | Used? | Intact? | | | | | | | | | | |
| <i>Amber Underwood</i> | | 11/9/17 | 1230 | <i>[Signature]</i> | | | | | | | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | |
| Relinquished By: (Signature and Printed Name) | | Date | Time | Received By: (Signature and Printed Name) | | | Date | Time | Turnaround: | | | Regular | Special | | | | | | | | | | |
| | | | | | | | | | | | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | |
| Relinquished By: (Signature and Printed Name) | | Date | Time | Received for Lab By: (Signature and Printed Name) | | | Date | Time | Were samples properly preserved: | | | Yes | No | | | | | | | | | | |
| | | | | <i>Richard Brown</i> | | | 11/9/17 | 1230 | | | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | |
| Comments: | | | | | | FLOW DATA | Field Test | Time | Analyst | Result | Result | Units | | | | | | | | | | | |
| | | | | | | Analyst: | pH: | 120 ¹⁵ | <i>[Signature]</i> | 7.10 | | | | | | | | | | | | | |
| | | | | | | Time: | Temp.: | 11.9 | | 11.0 | | | | | | | | | | | | | |
| | | | | | | Reading: | DO: | | | | | | | | | | | | | | | | |
| | | | | | | Units: | Debris: | | | | | | | | | | | | | | | | |
| Cool all samples to 6 degrees C. | | | | | | | Chlorinated? Yes No | | | This Document is Page <u>1</u> of <u>1</u> | | | | | | | | | | | | | |

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| | | |
|---|------------------------------------|------------------|
| Control Number: 1701020303 | Sample Date : 01/09/17 | Collected By: AU |
| Customer Name : CAVE SPRINGS, CITY OF OUTFALL 2 | Sample Time : 1201 | Delivery By : AU |
| Customer/Permit No. : 2379 / 4893-WR-2 002 | Sample Type : GRAB | Work Order : |
| Report Date : 01/20/17 | Sample From : EFFLUENT DIVERTER BX | Purchase Order : |

| <u>Laboratory Analysis</u> | | | | | | | <u>Quality Assurance</u> | |
|----------------------------|-------------|-----------|---------------------------|------------------|-----------------|--------------------|--------------------------|-------------------|
| <u>Analysis</u> | | | <u>Result</u> | <u>Notes</u> | <u>Quantity</u> | <u>Method</u> | <u>Precision</u> | <u>Accuracy</u> |
| <u>Date</u> | <u>Time</u> | <u>By</u> | <u>Parameter</u> | | | | <u>% RPD</u> | <u>% Recovery</u> |
| 01/12 | 0946 | AEU | Ammonia Nitrogen | 31.6 mg/L | | SM 1997 4500-NH3 F | 0.00 | 100.0 * |
| 01/17 | 1300 | TSB | Kjeldahl Nitrogen Total | 33.60 mg/L | | SM 1997 4500-NorgB | 1.34 | 100.9 * |
| 01/09 | 1311 | AEU | Nitrate Nitrogen | 40.60 mg/L | | SM 2000 4500-NO3 E | 1.87 | 109.0 * |
| 01/10 | 1540 | TSB | Nitrite Nitrogen | 2.100 mg/L | | SM 2000 4500 NO2 B | 2.45 | 100.8 |
| 01/09 | 1205 | AEU | pH | 7.6 S.U. | | SM 2000 4500-H+ B | 0.00 | N/A |
| 01/10 | 1000 | TSB | Phosphorous, Total (as P) | 6.1 mg/L | | EPA 365.3 | 1.87 | 103.9 * |
| 01/11 | 1036 | AEU | Solids, Total Suspended | 7.0 mg/L | | SM 1997 2540 D | 0.00 | N/A * |
| 01/09 | 1638 | AEU | Coliform, Fecal | 14200 /100ml (b) | | SM 9222 D 1997 | 0.00 | N/A * |
| 01/11 | 1400 | TSB | BOD, Carbonaceous | 7.5 mg/L | | SM 2001 5210 B | 13.98 | 110.0 * |
| 01/13 | 1215 | AEU | Solids, % Total by mass | 0.035 % | | SM 1997 2540 G | 1.06 | N/A * |
| 01/19 | 0825 | TSB | Nitrogen, Plant Available | 74.9 mg/L | | SM 1997 4500-N | | |
| 01/09 | 1205 | AEU | Sample Collection/Travel | 1 each | | | | |

* QA data shown is from a different sample or standard on the same date.
 (b) Exceeds Permit Limits for Maximum Concentration

All equipment used is checked and/or calibrated daily. All NPDES testing is conducted in accordance with 40 CFR Part 136. A minimum of 10% spiked and duplicate samples is run on each parameter where applicable for Quality Assurance purposes. Quality Assurance Plan on file with Arkansas Department of Environmental Quality. Analysis time indicates the time of the start of the analytical batch in which the specific sample was included.

Signature Richard Brown
 Environmental Services Co., Inc.

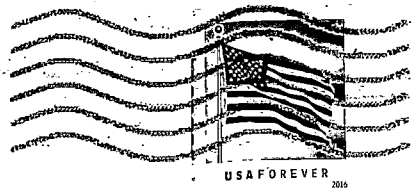
CAVE SPRINGS WATER DEPARTMENT

P.O. Box 5

CAVE SPRINGS, ARKANSAS 72718

RETURN SERVICE REQUESTED

NORTHWEST AR P&DF
AR 727 2 T
01 FEB 2017 PM



ADEQ
Enforcement Section/Water Div.
5301 Northshore Drive
North Little Rock, AR 72118

7211835317

