

CITY OF RIVERSIDE COUNCIL MEETING AGENDA  
RIVERSIDE COUNCIL CHAMBERS  
60 N GREENE ST  
Tuesday, September 5, 2023 6:00 PM

The meeting will be recorded and can be viewed live by visiting the city website at [www.riversideiowa.gov](http://www.riversideiowa.gov)

**NOTICE TO THE PUBLIC: This is a meeting of the City Council to conduct the regular business of the city. Every item on the agenda is an item of discussion and action if needed.**

1. Call meeting to order
2. Roll Call
3. Approval of Agenda
4. Consent agenda
  - a. Minutes
  - b. Expenditures
  - c. RACC Fall Demo Derby
5. **Public forum: 3 minutes per person. See guidelines for public comments at the Clerk's table.**
6. City Engineer's Report (Axiom) (7)
  - a. Wastewater treatment plant project
  - b. Consider Resolution (2023-64) Change Order #2- WWTP Roof Insulation Adjustments
  - c. Consider Resolution for Change Order #3 – WWTP Exterior Doors
  - d. Consider Resolution WWTP Pay Request #2 (9)
  - e. Water treatment plant update.
  - f. 3<sup>rd</sup> St Miscellaneous Items
  - g. Birthplace ADA Ramp
  - h. Consider Resolution for adopting Iowa SUDAS (12)
7. PeopleService
  - a. Well #6 (13)
  - b. Harn Report (22)
  - c. Generator Report (35)
  - d. Repair LS#2 Fairbanks pump (67)

CITY OF RIVERSIDE COUNCIL MEETING AGENDA  
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60 N GREENE ST

- e. Replace WWTP digester pump (69)
8. City Administrator's Report (70)
- a. Auditing firm for FY 23 Annual Exam (71)
  - b. Riverside Fire Department Stipend Policy Update (74)
  - c. Employee Handbook Update
  - d. Debbins Building Update (77)
9. Monthly Financial and Billing Report – July 2023 (79)
10. Closing Comments
11. Motion to Adjourn

RIVERSIDE CITY COUNCIL MEETING: Monday, August 21st, 2023

The Riverside City Council meeting opened at 6:00 pm at City Hall with Mayor Allen Schneider requesting roll call. Council members present: Tom Sexton, Edgar McGuire, Kevin Kiene, and Kevin Mills. Absent: Lois Schneider

Motion by McGuire, second by Sexton to approve agenda. Passed 4-0.

Motion made by Sexton, second by Kiene to approve consent agenda including minutes, expenditures, Dollar General alcohol permit renewal, omitting Buckeye Street closing request for more information. Passed 4-0.

Mary Audia, Washington Economic Development Group, gave an update on the student-built home project, business retention, tourism, CDBG Downtown Revitalization in Riverside, and discussed ways in which the City and WEDG can continue to work together.

David Tornow presented a report on permits and nuisances, discussed dangerous building ordinance, swimming pool fence ordinance, and a developer expectations packet.

Brian Boelk, Axiom Consulting, gave updates on the Wastewater Treatment Plant, Water Plant, 3<sup>rd</sup> Street Improvements, Boat Ramp, and Capital Improvement Project planning.

Sexton moved, second by Mills to table resolution for change order to Wastewater Project. Passed 4-0.

Luis Ramirez of PeopleService, Inc. presented monthly reports and discussed the monthly PeopleService meeting attended by PeopleService staff, V&K, and City staff.

Cole Smith presented City Admin Report.

Sexton moved, second by McGuire to pass Resolution #2023-64, approving to waive review of Charles Strabala Estate. Passed 4-0.

Motion by Kiene, second by McGuire to adjourn at 7:57 PM. Passed 4-0.

Full content of Council Meetings can be viewed on the City website; [riversideiowa.gov](http://riversideiowa.gov)

City Council Meeting – Tuesday, September 5th, 2023 at 6:00 pm in City Hall.

ATTEST:



\_\_\_\_\_  
Cole Smith; City Administrator



\_\_\_\_\_  
Allen Schneider; Mayor



EXPENDITURES SEPTEMBER 5, 2023				
	COUNCIL MEETING	BILLS		
1	ALLIANT ENERGY	PARKS	001-5-430-6371	\$ 478.29
2	ALLIANT ENERGY	SEWER	610-5-815-6371	\$ 631.96
3	ALLIANT ENERGY	CITY HALL	001-5-650-6371	\$ 603.71
4	ALLIANT ENERGY	STREET LIGHTS	001-5-230-6371	\$ 1,437.90
5	ALLIANT ENERGY	FIRE STATION	002-5-150-6330	\$ 759.11
6	ALLIANT ENERGY	WATER	600-5-810-6371	\$ 309.48
7	ABOVE & BEYOND	SHOP SERVICE	001-5-210-6507	\$ 519.07
8	ABOVE & BEYOND	CITY HALL SERVICE	001-5-650-6310	\$ 120.44
9	ACCESS	COPIER	001-5-650-6496	\$ 381.99
10	ACME ELECTRIC	WTP SERVICE	600-5-810-6374	\$ 373.64
11	AIRGAS	FD-EMS	002-5-150-6375	\$ 215.32
12	ALTORFER	5 LS GENERATORS	610-5-815-6330	\$ 3,426.00
13	ALTORFER	WTP GENERATOR	600-5-810-6330	\$ 1,012.00
14	ALTORFER	FD GENERATOR	002-5-150-6333	\$ 660.00
15	ALTORFER	WWTP GENERATOR	610-5-815-6330	\$ 1,019.00
16	AXIOM CONSULTANTS	WWTP	301-5-750-6798	\$ 890.00
17	AXIOM CONSULTANTS	3RD STREET	301-5-750-6796	\$ 2,383.75
18	BECKY LaROCHE	CELL STIPEND	001-5-650-6373	\$ 50.00
19	BRYAN LENZ	CELL STIPEND	001-5-430-6373	\$ 50.00
20	CITY OF KALONA	BUILD INSPECT- JUNE	001-5-170-6499	\$ 1,696.13
21	CITY OF KALONA	BUILD INSPECT- JULY	001-5-170-6499	\$ 1,744.04
22	COLE SMITH	CELL STIPEND	001-5-650-6373	\$ 50.00
23	COLE SMITH	MILEAGE	001-5-650-6240	\$ 123.80
24	CRESENT ELECTRIC	VETS PK FOUNTAIN POLE LIGHTS	001-5-430-6325	\$ 89.99
25	ELECTRIC PUMP	WWTP SERVICE CALL	610-5-815-6374	\$ 1,085.00
26	ELECTRIC PUMP	FLYGT IMPELLER KIT	610-5-815-6374	\$ 9,258.30
27	ELECTRIC PUMP	FLYGT PUMP REPAIR AS QUOTED	610-5-815-6374	\$ 10,271.00
28	FASTENAL	WTP	600-5-810-6374	\$ 9.34
29	FP MAILING	3RD QTR LEASE	001-5-650-6508	\$ 86.85
30	FP MAILING	RED INK	001-5-650-6508	\$ 186.32
31	GRANGER	WTP-AIR FILTERS	600-5-810-6374	\$ 106.32
32	IPI	CASINO TURN SIGNS	110-5-210-6415	\$ 144.20
33	JIMS SMALL ENGINE	PARKS	001-5-430-6325	\$ 107.11
34	KUM&GO	FD-FUEL	002-5-150-6350	\$ 206.17
35	LINCOLN NAT'L LIFE	INSURANCE	001-5-620-6150	\$ 188.76
36	LOGAN MICHEL	CELL STIPEND	001-5-210-6373	\$ 50.00
37	MEARDON, SUEPPEL, DOWNER	LEGAL	001-5-640-6411	\$ 1,105.00
38	MENARDS	WWTP	610-5-815-6374	\$ 169.90
39	MENARDS	PARKS-CRACK FILLER	001-5-430-6325	\$ 85.80
40	MENARDS	WTP	600-5-810-6374	\$ 216.16
41	MID AMERICAN ENERGY	SHOP	001-5-210-6371	\$ 11.44
42	MID AMERICAN ENERGY	RVFD	002-5-150-6330	\$ 13.08
43	MID AMERICAN ENERGY	C HALL	001-5-650-6371	\$ 11.44
44	MIDWEST BREATHING AIR	FD-AIR PACS	002-5-150-6356	\$ 888.92
45	PEOPLE SERVICES	SERVICE	610-5-815-6500	\$ 12,623.00
46	PEOPLE SERVICES	SERVICE	600-5-810-6500	\$ 12,623.00
47	SHARON TELEPHONE	CITY HALL	001-5-650-6373	\$ 313.62
48	SHARON TELEPHONE	FIRE STATION	002-5-150-6332	\$ 87.68
49	SHARON TELEPHONE	SHOP	001-5-210-6373	\$ 40.83
50	SHARON TELEPHONE	WATER PLANT	600-5-810-6373	\$ 40.83
51	SHARON TELEPHONE	SEWER PLANT	610-5-815-6373	\$ 40.83
52	VEENSTRA & KIM	WTP ENGINEERING	301-5-750-6800	\$ 953.58
53	VERIZON	ADMIN TABLET	001-5-650-6373	\$ 25.02
54				
55	<b>TOTAL BILLS*****</b>			<b>\$ 69,975.12</b>
56	DELTA DENTAL	BILLING-AUG	001-5-430-6150	\$ 192.58
57	KALONA TIRE	FD- TRUCK	002-5-150-6352	\$ 287.93
58	WELLMARK	BC/BS	001-5-620-6150	\$ 2,118.59
59	LEAF	FINAL COPIER	001-5-650-6496	\$ 313.00
60	VERIZON	GATEWAY-WW	610-5-815-6373	\$ 63.54
61	US CELLULAR	FD	002-5-150-6332	\$ 72.45
62	WATER ACCOUNT	RETURN DEPOSIT	600-4-810-1-4501	\$ 66.61
63	<b>*****</b>	<b>TOTAL PAID BILLS</b>		<b>\$ 3,114.70</b>
64				
65	<b>*****</b>	<b>TOTAL EXPENDITURES</b>		<b>\$ 73,089.82</b>
66				
67				



68					
69					
70					
71	<b>EXPENDITURES by FUND</b>				
72	GENERAL FUND	\$	9,557.55		
73	FIRE DEPARTMENT	\$	2,830.28		
74	ROAD USE FUND	\$	144.20		
75	CASINO FUND	\$	-		
76	CAPITAL PROJECTS	\$	4,227.33		
77	WATER FUND	\$	14,689.91		
78	SEWER FUND	\$	38,525.85		
79	<b>TOTAL EXPENDITURES</b>	\$	<b>69,975.12</b>		



CITY OF RIVERSIDE  
PARK RESERVATION FORM

Reservation Date(s) Nov. 4th

Reservation Time(s) Noon - 9 pm

Name RACE Fall Demo Derby

Phone \_\_\_\_\_

The renter listed above agrees to the following terms for reserving CITY PARKS.

- Rental is \$25 in advance (Shelter and stage only).
- Picnic tables if moved are to be returned to their original location.
- All trash and/or recycling should be placed in appropriate containers.

Renter is responsible for any and all damages made to Park Shelters and/or ball diamonds.

Please indicate Park rental choice: Demo Derby

Railroad Park Shelter                       Conservation Park Shelter  
 Hall Park Shelter                                       Hall Park Stage (red barn)  
 Hall Park ball diamonds                       Hall Park Playground Area  
 East     West     Both  
 Concession Stand                                       Tennis Court  
 Volleyball Area                                       Demo Pit Area

RACE  
Signature

9-31-23  
Date

City Approval \_\_\_\_\_

Date \_\_\_\_\_

non-profit  
Rental Fee Paid/Date

Cash \_\_\_\_\_ Check# \_\_\_\_\_

<b>AXIOM PROJECT NO.</b> 220181	<b>DATE</b> 8/24/2023
<b>REPORT NO.</b> 09	<b>PAGE</b>

<b>PROJECT NAME</b> RIVERSIDE WASTEWATER TREATMENT RENOVATIONS	<b>AXIOM REPRESENTATIVE (reported by)</b> Adrienne Bricker		
<b>CURRENT ACTIVITIES and SCOPE of WORK</b> Arrived for the bi-weekly progress meeting then continued to walk the site after. Noted, due to heat, workers were not active at the time of the visit.  Since the last visit, all (4) exterior walls show that IMWP is installed. Crews are actively working trims and around windows, doors and miscellaneous items. They are anticipated to be completed with trims by Monday/Tuesday of next week (8/28-8/29). Once trims are complete, crews will continue with caulking and that is anticipated to be completed by Friday, September 1st (weather pending).  Make-Up Air (MUA) unit is anticipated to be delivered by Friday, September 1st.  Interior work is to start week of 8/28, as PeopleService will start clearing out the lab space on Monday/Tuesday and Spectra will start prepping walls on Wednesday. They will be using wire brushes and wire wheels to remove paint and residue from walls.  It was noted that once paint is ground off, a review of the existing grout may be addressed with Horizon Architecture for any issues.  Once walls are cleared, crews will prep before crews applying the new coating.  Design team issued ITC 03 Door Replacement on 8/16 to provide direction for Spectra to gather pricing. Pricing should be ready for the upcoming Council Meeting.	<b>CLIENT REPRESENTATIVE (reported to)</b> Cole Smith, City Administrator & Riverside Council  <table border="1" data-bbox="928 472 1477 546"> <tr> <td><b>CURRENT PHASE</b></td> <td><b>NEXT PHASE</b></td> </tr> </table> <b>PROVIDED FOR:</b> Upcoming Council Meeting / Design Team Updates  <b>SCHEDULE ITEMS</b> Delivery Date of RTU - TBD  Revised Schedule: Installation of IMWPs trims ~8/28-8/29 Coping installation - TBD PeopleService to clear lab ~8/28-8/29 Interior wall prep ~8/30 Interior wall grinding ~8/31-9/6 Interior coatings to start ~9/6 Mechanical/Electrical rough-in to start ~TBD pending grinding  Active Contractors: Spectra Build Volve Contracting	<b>CURRENT PHASE</b>	<b>NEXT PHASE</b>
<b>CURRENT PHASE</b>	<b>NEXT PHASE</b>		



# AXIOM CONSULTANTS

## CLIENT PROGRESS REPORT

AXIOM PROJECT NO. 220181	DATE 8/24/2023
CLIENT PROJECT NO. 09	PAGE



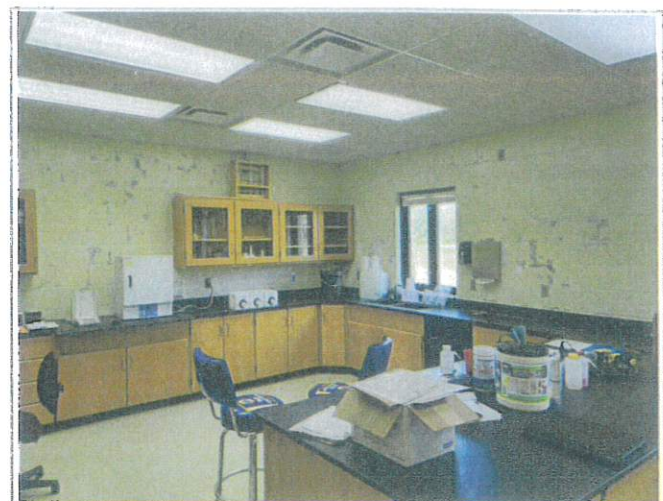
Overview from SW corner of site, shows panel install is complete with trims, caulking, coping and re-installation of lighting and signage left.



Overview from the NE corner shows progress of panel installation.



Overview of the north face shows crews working around miscellaneous items and trimming needed



Overview of the lab, PeopleService to move all items to center counter-top to be protected by Spectra and to have access for testing as needed.

### PROJECT COORDINATOR or MANAGER SIGNATURE

*Alison M. Bridger*

NOTICE: AXIOM personnel have completed this report to the best of their ability in the most accurate fashion possible at the time and with the information available at the time of its writing. This report serves as a snapshot of design-phase progress and is provided to the Client in order to update them on the general overall status of the design team (and possibly subconsultants) in relation to the contracted scope of work. This report should not serve as official scheduling document in so far as it may contradict the originally contracted work or pertain to adjustments in the overall scope of work. The report is intended as an informational document only - to be used by the client in understanding the current workload and path of the design team.

RESOLUTION #2023-XX

RESOLUTION APPROVING PAY REQUEST #2 TO SPECTRA BUILD FOR THE WASTEWATER TREATMENT PLANT PROJECT

Whereas, the City of Riverside City at the recommendation of the City Engineering Firm, Axiom Consultants, Brian Boelk and it is the opinion of the City Engineering Firm that the City Council accept this pay request #2 in the amount of \$65,431.25 for payment of this project.

Therefore, be it resolved the City of Riverside City Council does hereby accept the Pay Request #2 for work done on the Wastewater Treatment Plant Project through 8/25/23.

It was moved by Councilperson \_\_\_\_\_, seconded by Councilperson \_\_\_\_\_ to approve the foregoing resolution.

Roll Call: Sexton, McGuire, Schneider, Kiene, Mills

Ayes:

Nays:

Absents:

PASSED AND APPROVED by City Council of Riverside, Iowa, on this 5th day of September, 2023.

Signed: \_\_\_\_\_ Date \_\_\_\_\_

Tom Sexton, Mayor Pro Tem

Attest: \_\_\_\_\_ Date \_\_\_\_\_

Becky LaRoche, City Clerk





## Progress Billing

Application: 2

Period: 08/25/2023

**Owner:** City of Riverside  
60 Greene St  
Riverside IA 52327

**Job Location:** Riverside WWTP Renovations 22041  
1197 Vine Ave  
Riverside IA 52327

### Application For Payment On Contract

Original Contract.....	299,700.00
Net Change by Change Orders.....	18,489.38
Contract Sum to Date.....	318,189.38
Total Complete to Date.....	218,467.49
Total Retained.....	10,098.52
Total Earned Less Retained.....	208,368.97
Less Previous Billings.....	142,937.72
Current Payment Due.....	65,431.25
Balance on Contract.....	109,820.41

### Contractor's Certification of Work

The undersigned contractor certifies that, to the best of the contractor's knowledge, the work on the above named job has been completed in accordance with the plans and specifications to the level of completion indicated on the attached schedule of completion.

Contractor: 

Date: 8/29/2023

  
Approved: Adrienne M. Bricker 8/29/2023  
Project Manager/Coordinator

Terms: Invoices are due and payable from the date of invoice. All overdue amounts will be charged a service charge of 0.00 % per annum. Please make checks payable to: Spectra Build

Thank you for your prompt payment.



PROGRESS BILLING

Application: 2

Period: 08/25/2023

Schedule of Work Completed

Description of Work	Scheduled	Changes	Contract	Previous	Current Comp.	Stored Mat.	Total Comp.	%	Balance	Retained
Bond Fees	6,741.60		6,741.60	6,741.60			6,741.60	100.00		337.08
Temporary Construction	2,253.90		2,253.90		500.00		500.00	22.18	1,753.90	25.00
General Materials	1,123.60		1,123.60		350.00		350.00	31.15	773.60	17.50
General Labor/Cleaning	1,411.20		1,411.20		250.00		250.00	17.72	1,161.20	12.50
Temporary Toilets	421.35		421.35		100.00		100.00	23.73	321.35	5.00
Dumpster/Landfill	2,247.20		2,247.20		750.00		750.00	33.37	1,497.20	37.50
Equipment	2,809.00		2,809.00		1,750.00		1,750.00	62.30	1,059.00	87.50
Interior Paint Scrape/Prep	5,265.80		5,265.80						5,265.80	
CMU Efflorescence Cleanin	5,265.80		5,265.80						5,265.80	
Exterior Signage Removal/R	1,411.20		1,411.20		400.00		400.00	28.34	1,011.20	20.00
Misc Demolition	705.60		705.60		400.00		400.00	56.69	305.60	20.00
CMU Repointing/Patching	2,809.00		2,809.00						2,809.00	
Steel Angle @ Openings	4,782.00		4,782.00		2,200.00		2,200.00	46.01	2,582.00	110.00
Roofing Package	67,977.80		67,977.80	60,477.80			60,477.80	88.97	7,500.00	3,023.89
Coping-2x blocking	898.88		898.88						898.88	
IMWP Package	122,472.40		122,472.40	62,493.10	54,979.30		117,472.40	95.92	5,000.00	5,873.62
Blower Exhaust Extension	1,685.40		1,685.40		1,685.40		1,685.40	100.00		84.27
Fluid Applied Vapor Barrier	8,893.29		8,893.29	3,383.00	5,510.29		8,893.29	100.00		444.66
Joint Sealant/Caulking	751.30		751.30						751.30	
Painting Package	12,582.48		12,582.48						12,582.48	
HVAC Package	40,449.60		40,449.60						40,449.60	
Electrical Package	6,741.60		6,741.60						6,741.60	
Change Order# 2		1,992.38	1,992.38						1,992.38	
Change Order# 3		16,497.00	16,497.00	16,497.00			16,497.00	100.00		
<b>Totals:</b>	<b>299,700.00</b>	<b>18,489.38</b>	<b>318,189.38</b>	<b>149,592.50</b>	<b>68,874.99</b>		<b>218,467.49</b>	<b>68.66</b>	<b>99,721.89</b>	<b>10,098.52</b>

(11)

**RESOLUTION #2023-XX**

**RESOLUTION ADOPTING THE**

**IOWA STATEWIDE URBAN DESIGN STANDARDS FOR PUBLIC IMPROVEMENTS AND  
THE IOWA STATEWIDE URBAN STANDARD SPECIFICATIONS FOR PUBLIC  
IMPROVEMENTS MANUALS**

WHEREAS, it is recommended by the City Engineer that the City adopt the Iowa Statewide Urban Design Standards for Public Improvements and the Iowa Statewide Urban Standard Specifications for Public Improvements manuals, and;

WHEREAS, from time to time the City Engineer will develop supplemental specifications to modify these design standards and construction specifications, and;

WHEREAS, these design standards and construction specifications, along with the supplemental specifications, will be used to design and construct public improvements within the City, and;

WHEREAS, it is the opinion of this City Council that it would be in the best interest of the City of Riverside to adopt said design standards and construction specifications.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Riverside, Iowa that the most recent published editions of the Iowa Statewide Urban Design Standards for Public Improvements and the Iowa Statewide Urban Standard Specifications for Public Improvements manuals are hereby adopted by the City of Riverside, Iowa.

**Roll Call:** Sexton, McGuire, Schneider, Kiene, Mills

Ayes:

Nays:

**PASSED AND APPROVED** by City Council of Riverside, Iowa, on this 5th day of September, 2023.

Signed: \_\_\_\_\_ Date \_\_\_\_\_

Tom Sexton, Mayor Pro Tem

Attest: \_\_\_\_\_ Date \_\_\_\_\_

Becky LaRoche, City Clerk



August 23, 2023

ATTN BECKY LAROCHE CITY CLERK  
RIVERSIDE CITY OF  
CITY HALL BOX 188  
RIVERSIDE, IA, 52327



Subject: RIVERSIDE WATER SUPPLY Sanitary Survey  
Public Water Supply ID # IA9260090

Dear Attn: Honorable Mayor and Council:

Enclosed is the report of the recent sanitary survey of the Riverside Water System which I conducted on August 10, 2023. No significant deficiencies were identified. The City has not been properly maintaining Well #6 as a Standby well. **The City will need to notify this office by Sept. 22, 2023 of their decision to either maintain Well #6 and regularly exercise the well or abandon it. If the City chooses to abandon Well #6, then it must be properly plugged within 90 days of that decision.**

**The City will also need to submit a copy of the lead and copper sampling plan with the tiers and selection criteria indicated for each of the lead and copper sampling sites by Sept. 22, 2023.**

Several other minor deficiencies, requirements, and recommendations are summarized at the end. **You must take action to correct the minor deficiencies and the requirements.** You are encouraged to address the recommendations as time and budget allows.

If you have any questions about the inspection or report, please contact me at 319-653-1845 or [jon.ryk@dnr.iowa.gov](mailto:jon.ryk@dnr.iowa.gov).

The cooperation and assistance of Steven Kramer and Steve Robinette in completing this survey was appreciated.

Sincerely,

**Jon Ryk** Digitally signed by Jon Ryk  
Date: 2023.08.23 09:19:30  
-05'00'

JON RYK  
Environmental Specialist, FIELD OFFICE #6

Enclosure(s): 1) Sanitary Survey Report

- c: Water Supply Operations (w/encl. 1 via email: [pwsrecords@dnr.iowa.gov](mailto:pwsrecords@dnr.iowa.gov))
- Steven Kramer (w/encl. 1 via email: [skramer@peopleservice.com](mailto:skramer@peopleservice.com))
- Steve Robinette (w/encl. 1 via email: [srobinette@peopleservice.com](mailto:srobinette@peopleservice.com))
- FOCD – Riverside Water System #9260090



PUBLIC WATER SUPPLY INFORMATION		
SYSTEM	NAME: RIVERSIDE WATER SUPPLY	PWS CLASSIFICATION: Community
	ADDRESS: RIVERSIDE, CITY OF, ATTN BECKY LAROCHE CITY CLERK, CITY HALL BOX 188, RIVERSIDE, IA, 52327	PHONE: 319-648-3501
	RESPONSIBLE AUTHORITY/OWNER: RIVERSIDE, CITY OF	
	ADDRESS: RIVERSIDE, CITY OF, ATTN BECKY LAROCHE CITY CLERK, CITY HALL BOX 188, RIVERSIDE, IA, 52327	PHONE: 319-648-3501
	TREATMENT GRADE: WT2	DISTRIBUTION GRADE: WD2

SOURCE/ENTRY POINT	SDWIS NAME: S/EP FROM WELLS #7 & #8	DESCRIPTION/PHYSICAL LOCATION: 3126 Highway 22, Riverside, IA 52327
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RESPONSIBLE OPERATOR(S)	NAME: STEVEN ROBINETTE	WT GRADE: WT-4	WD GRADE: WD-4	CERTIFICATION #: 6197
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SURVEY INFORMATION				
SURVEY	DATE THIS SURVEY: 8/10/2023	DATE LAST SURVEY: 12/28/2020	PURPOSE: Routine Sanitary Survey	
PERSON INTERVIEWED	NAME: Steven Kramer Steve Robinette		TITLE: Operator Operator in Charge / Regional Manager - Peoples Services	
CONSUMPTION	Period Reviewed: 12/28/2020 to 8/10/2023	AVERAGE DAILY USE (MGD): 0.164	MAXIMUM DAILY USE (MGD): 0.882	PE @100 GPCD: 1640
POPULATION SERVED	TOTAL NUMBER OF SERVICE CONNECTIONS: 520		POPULATION OUTSIDE CORPORATE LIMITS: 0	
	CENSUS POPULATION: 1060		TOTAL POPULATION SERVED*: 1060	
	MILES OF PIPE: 0			

\*equals census pop. + population outside corp. limits(2.5 X # of service connections or actual pop.)

SURVEY INFORMATION		
ASSESSMENTS	SOURCE CLASSIFICATION: Ground water	ORGANIC CHEMICAL PHYSICAL VULNERABILITY (SW/IGW SYSTEMS ONLY): No
	ORGANIC CHEMICAL VULNERABILITY (GW SYSTEMS ONLY): No	ORGANIC PHYSICAL VULNERABILITY (GW SYSTEMS ONLY): No

AUTHENTICATION		
INSPECTOR	NAME/TITLE: JON RYK Environmental Specialist 	Digitally signed by Jon Ryk Date: 2023.08.23 09:19:02 -05'00'
REVIEWER	NAME/TITLE: AARON PICKENS Environmental Specialist Senior 	Digitally signed by Aaron Pickens Date: 2023.08.23 09:07:03 -05'00'
		DATE:

## General Description

The Riverside public water supply derives its water from two wells, Well #7 (2006), and Well #8 (2006). Treatment consists of the following:

- Antiscalant injection (required for reverse osmosis)
- Prefiltration with bag filters and cartridge filters (required for reverse osmosis)
- Reverse Osmosis (RO): 3 Skids:

Each skid has nine cartridges. The water is first sent through the first six cartridges utilizing a variable frequency drive (VFD) pump. The reject water from the first six cartridges is then sent to the remaining three utilizing a second VFD pump. The reject water from there is sent to waste. RO filtered water is then blended with raw water. The system cycles such that two skids are running at one time and the skid that is cycled off alternates each time. The pumps associated with the reverse osmosis system are referred to as the Treatment Plant Pump Station (PF01). The pump station for the reverse osmosis system consists of a total of six vertical in line pumps. There are two pumps per skid as indicated above. The first pump sends the water through the first six cartridges. The reject water from the first six cartridges is then sent to through the remaining three cartridges via the second pump. The pumping capacity through each of the skids is 301 gallons per minute (gpm)

- Blended phosphate addition (for iron and manganese sequestration and corrosion control)
- Fluoride addition (via hydrofluorosilicic acid injection)
- Chlorination (for disinfection) via sodium hypochlorite solution
- Aeration (for pH adjustment/degasification)
- Detention (in 500,000 gallon clearwell)
- Sodium hydroxide injection at the clearwell (for pH adjustment)
- Chlorine injection at clearwell (if necessary)
- Post-clearwell chlorination (if necessary)

The treated water in the clearwell is then pumped to the distribution system and a 250,000 gallon elevated storage tank (EST) via four high service pumps with a rated capacity of 850 gpm each for a total pumping capacity of 3400 gpm. These 4 pumps are identified as Pump Station #1 (PF02). The 250,000 gallon EST provides storage and distribution system pressure.

Note:

1. The system has an emergency or restricted use well, Well #6 (1973). This well serves treatment plant #1 (TP01). Both Well #6 and Treatment Plant #1 (TP01) are indicated on the water supply operations permit as being in standby mode. However, the well has not been maintained and routinely run as a standby well.

The distribution system has ~520 service connections and serves a population of 1060.

### 1. Sources

- A Source Water Protection Plan has been developed but not implemented. Please contact Matt Dvorak, Source Water Protection Coordinator, via email at [matthew.dvorak@dnr.iowa.gov](mailto:matthew.dvorak@dnr.iowa.gov) or telephone 515-725-8468 or Iowa Rural Water Association at 641-787-0330 for assistance with updating or fully implementing the plan.
- It is recommended that the water system obtain an interconnection agreement with a separate public water supply or develop an emergency plan for supplying water during outages. An emergency plan should be updated annually.
- The water supply has their Well #8 (WL04) out of service at this time. The total developed groundwater source capacity, unless otherwise specified by the reviewing authority, shall equal or exceed the design maximum day demand with the largest producing well out of service.

[Recommended Standards for Water Works 3.2.1.1]

- Well #6 Standby (WL02) and Well #7 (WL03) – No physical protection from damage was observed immediately around the upper terminus of these wells. While Well #7 was located in the fenced in area around the treatment plant there was no protection immediately around the upper terminus of the well. Recommended Standards for Water Works 3.2.4.10.e requires that the upper terminal of the well be protected from physical damage.
- Well #6 Standby (WL02) - Recommended Standards for Water Works 3.2.5.4 requires the owner of each well to retain all records pertaining to the well until the well has been properly abandoned. It is recommended that the system obtain a copy of the well construction log.
- Well #6 Standby (WL02) – The system has not been maintaining Well #6 and regularly exercising the well. All standby or restricted use sources must be adequately maintained to prevent degradation of the groundwater. The pump must be routinely exercised to ensure the source remains viable. A well not being maintained properly or not exercised regularly shall be considered abandoned. Wells that meet the definition of an abandoned well (no longer in use or in such disrepair that continued use is unsafe or impractical) must be plugged in accordance with Chapter 567 IAC 39 within 90 days of abandonment. Notify this office of the system's decision to maintain the well and routinely exercise the pump or provide a timeline to properly plug the well.
- Well #7 (WL03) and Well #8 (WL04) - An adequate alarm system should be provided in the event of well pump failure.

## 2. Treatment

- Plant #1 (Well #6) Standby (TP01) - All standby treatment plants (temporarily taken out of service with the expectation of being returned to service at a future date) must be adequately maintained to prevent degradation of the equipment and ensure reliable operation.
- PLANT #2 (WELLS #7 & #8) (TP02) – The system was not keeping a 10 mg/L free chlorine residual in the stock phosphate solution tank. Stock phosphate solution must be kept covered and chlorine shall be applied to the phosphate solution in sufficient quantity to give an initial residual of 10 mg/L free chlorine residual. A residual must be maintained in the solution at all times. [567 IAC 42.4(3)"b"(2)]
- PLANT #2 (WELLS #7 & #8) (TP02) - Recommended Standards for Water Works 5.4.7.b states that secondary control systems for fluoride chemical feed devices shall be provided as a means of reducing the possibility for overfeed; these may include flow or pressure switches or other devices.
- PLANT #2 (WELLS #7 & #8) (TP02) - Hand pumps may not be provided for transfer of fluorosilicic acid from a shipping container. [Recommended Standards for Water Works 5.1.11]
- PLANT #2 (WELLS #7 & #8) (TP02) - According to the operator, the system is not doing routine maintenance on the reverse osmosis system at the appropriate frequency. Routine maintenance following the manufacturer's instructions is recommended to protect and prolong the life of the treatment unit.
- PLANT #2 (WELLS #7 & #8) (TP02) - It is recommended that a schematic of the treatment plant be developed and updated as changes to the treatment process occur.
- PLANT #2 (WELLS #7 & #8) (TP02) - The sodium hydroxide and sodium hypochlorite storage tanks did not have the NSF certification on the label. Subparagraph 567 of the Iowa Administrative Code 42.4(3)"b" and Recommended Standards for Water Works 2.21 requires the use of water treatment chemicals that have been certified to ANSI/NSF Standard 60.

- PLANT #2 (WELLS #7 & #8) (TP02) - It was noted that some of the injection lines that were not labeled near the injection point or were such that the label was not easily seen. It is recommended that all piping and chemical feed lines be labeled and color coded according to Recommended Standards for Water Works 2.14 and 5.1.12.
- PLANT #2 (WELLS #7 & #8) (TP02) - The antiscalent used is diluted on a 1:1 basis but there was no indication on the container and no written SOP for the dilution. It is recommended that Standard Operating Procedures (SOP) be written and periodically reviewed for mixing and/or dilution of chemicals.

### **3. Distribution System**

- 950 - Leaks in the water distribution system result in economic losses and create a public health risk. Risk to public health can be caused by contaminants entering the pipe through leak openings if water pressure in the distribution system is lost. While water audits provide an overall view of water losses and identify areas of the distribution system having excessive leakage, leak-detection surveys determine the exact location of leaks by use of sophisticated listening devices and noise correlators.
- 950 - There shall be no connection between the distribution system and any pipes, pumps, hydrants, or tanks whereby unsafe water or other contaminating materials may be discharged or drawn into the distribution system. It is recommended that the system conduct annual inspections to identify cross-connections within the distribution system. The EPA's Cross-Connection Control Manual (available via the internet) may be helpful in establishing an inspection program. [Recommended Standards for Water Works 8.10.1]
- 950 - The minimum size of water main which provides for fire protection and serving fire hydrants shall be six-inch diameter. The minimum size of water main in the distribution system where fire protection is not to be provided should be a minimum of three inch diameter. When fire protection is provided, it should be limited to segments of the distribution system that are served with adequately sized piping between the point of use and the treatment plant and in accordance with the requirements of the State Insurance Services Office. [Recommended Standards for Water Works 8.2.2 and 8.2.3]
- 950 - It is unknown if there are lead service lines and/or lead goose necks in the distribution system; these sources are known to be one of the major contributors to high lead levels in finished water delivered to customers. Efforts should be taken to replace these as they are discovered.

### **4. Finished Water Storage**

- The 500,000 gallon clearwell (ST02) does not have a regular frequency for cleaning and inspection. It is recommended that the interior of the storage structure be inspected at least every two years.
- ST02 - Some of the overflow pipes on the clearwell terminated greater than 24 inches above the ground surface. Overflow pipes on all water storage structures shall be provided with an overflow which is brought down to an elevation between 12 and 24 inches above the ground surface. [Recommended Standards for Water Works 7.0.7]. The facility should consider bringing all overflow pipes down to an elevation that terminates between 12-24 inches above ground surface to ensure compliance with design standards.
- ST02 - It was noted that the access openings to the clearwell were not elevated to at least 24 inches above the roof structure. Each manhole on a ground level or flat roof structure shall be elevated at least 24 inches above the top of the tank or covering sod, whichever is higher. [Recommended Standards for Water Works 7.0.8.2]. The facility should consider raising the access to the proper height to ensure compliance with design standards.
- ST02 - It was noted that the access hatches for the clearwell did not overlap the access frame and extend downwards. Each access manhole on a ground level or flat roof structures shall be fitted with a solid water tight cover which overlaps a framed opening and extends down around the frame at least two inches. The frame shall be at least four inches high. Each cover shall be hinged on one side, and



shall have a locking device. [Recommended Standards for Water Works 7.0.8.2] The facility should consider installing a proper lid/hatch to ensure compliance with design standards.

#### **5. Pumps, Pump Facilities and Controls**

There are no deficiencies or recommendations to report based on observations made at the time of this survey.

#### **6. Monitoring, Reporting and Data Verification**

- The lead and copper sampling plan for the water supply did not indicate the tiers and selection criteria for each of the lead and copper sampling locations. Subrule 567 IAC 41.4(1) requires lead and copper sample sites to be selected according to a three-tiered selection process. The sampling plan must be updated to include as many Tier 1 sample sites as practical based on the materials evaluation. Keep the materials evaluation survey with your records and update it as work is done in the system and new information is found on buried water lines, or when lines are replaced. This will help you in the future when new sites are needed.
- On December 22, 2021, EPA released the final Lead and Copper Rule Revisions (LCRR). This was a significant effort by the Agency over the past decade to revise the 1991 Lead and Copper Rule (LCR). One of the revisions to the LCRR includes requiring water systems to identify and make public the locations of lead service lines. The lead service line inventory must be completed and submitted to the Iowa DNR by October 16, 2024. Additional information regarding development of the lead service line inventory and Iowa DNR's lead service line inventory template can be found at <https://www.iowadnr.gov/Environmental-Protection/Water-Quality/Drinking-Water-Compliance/Lead-Service-Line-Inventories>. For technical assistance regarding lead service line inventories you may also contact Iowa Association of Municipal Utilities via email at: [leadserviceline@IAMU.org](mailto:leadserviceline@IAMU.org).

#### **7. Water System Management and Operations**

- The water supply has a 550 kW backup generator. 550 kW corresponds to a breaking horsepower of about 737. An internal combustion engine with a brake horsepower rating of greater than 400 measured at the shaft must apply for a construction permit from the Iowa DNR's Air Quality Bureau. For the purposes of this rule, the manufacturer's nameplate rating at full load shall be defined as the brake horsepower output at the shaft. [567 IAC 22.1(2)"r"] OR An internal combustion engine with a brake horsepower rating less than 400 measured at the shaft and installed after 3/18/2009, must submit the registration form for the engine. [567 IAC 22.1(2)]
- The backup power source should be tested periodically for functionality and kept in good condition. It is recommended that the backup power source be tested under load to ensure it will perform as needed in the case of an emergency.
- The Iowa DNR recommends water management contact a technical assistance provider to review water rates. Assistance in budgeting and rate setting is available through the Iowa Association of Municipal Utilities or Iowa Rural Water Association at no cost.
- It is recommended that water system management develop and implement an Operation Succession Plan to ensure identification of an operator-in-charge in the event of retirement. The Water Supply Operation Permit requires all water systems to have an adequate number of properly trained and knowledgeable operators for the efficient operation and maintenance of the system. An Excel spreadsheet that helps operators consolidate system information into one location, enabling increased organization and coordination among operators, can be found at <https://www.epa.gov/dwcapacity/interactive-tools-owners-and-operators>. This spreadsheet is designed to assist in personnel transition.

#### **8. Operator Certification Compliance**

There are no deficiencies or recommendations to report based on observations made at the time of this survey.

### Summary of Significant Deficiencies

There are no significant deficiencies to report based on observations made at the time of this survey.

### Summary of Minor Deficiencies

1. Well #6 has not been adequately maintained as a standby well and regularly exercised. Adequately maintain all standby or restricted use sources. [567 IAC Chapter 39]. **The City must notify this office by the date indicated on the cover letter of this report of their decision to either maintain Well #6 as a standby well and regularly exercise the well or properly plug it. Wells that meet the definition of an abandoned well (no longer in use or in such disrepair that continued use is unsafe or impractical) must be plugged in accordance with Chapter 567 IAC 39 within 90 days of abandonment.**
2. Use a pump to transfer fluorosilicic acid from a shipping container to a storage tank. Hand pumps may not be provided for transfer of fluorosilicic acid from a shipping container. [Recommended Standards for Water Works 5.1.11]
3. Add chlorine to the phosphate solution to provide a free residual of 10 mg/L and maintain a residual in the solution at all times. [Recommended Standards for Water Works 4.8.6]
4. Provide a secondary control system for fluoride chemical feed devices as a means of reducing the possibility for overfeed; these may include flow or pressure switches or other devices. [Recommended Standards for Water Works 5.4.7.b]
5. Develop a lead and copper sampling plan in accordance with Subrule 567 IAC 41.4(1). Specifically, the tiers and selection criteria need to be added to the existing lead and copper sampling plan. **The City must submit a revised lead and copper sampling plan by the date indicated on the cover letter of this report with tier and selection criteria added.**
6. Ensure all water treatment chemicals have been certified to ANSI/NSF Standard 60. [Subparagraph 567 of the Iowa Administrative Code 42.4(3)"b" and Recommended Standards for Water Works 2.21]

### Summary of Requirements

1. Based on the estimated braking horsepower of the emergency generator, it would require an air quality construction permit. Contact Iowa DNR's Air Quality Bureau to obtain a construction permit for the auxiliary power source. [567 IAC 22.1(2)"r"]

### Summary of Recommendations

1. Obtain an interconnection agreement with a separate public water supply or develop an emergency plan for supplying water during outages.
2. Provide an adequate alarm system in the event of well pump failure.
3. Develop a schematic of the treatment plant and keep it updated as changes to the treatment process occur.
4. Contact a technical assistance provider to review water rates.
5. Ensure water mains are sized appropriately where fire protection is provided. [Recommended Standards for Water Works 8.2.2 and 8.2.3]

6. Conduct annual inspections to identify cross-connections within the distribution system. The EPA's Cross-Connection Control Manual (available via the internet) may be helpful in establishing an inspection program. [Recommended Standards for Water Works 8.10.1]
7. Implement a leak detection survey program.
8. Perform routine maintenance on the membranes at appropriate frequencies recommended by the manufacturer.
9. Inspect the finished water storage structure(s) at least every two years.
10. Develop written Standard Operating Procedures (SOP) for mixing chemicals and keep them updated as conditions in the treatment process change.
11. Implement a leak detection program or perform a more comprehensive water audit to better assess and understand the occurrence of water and revenue losses.
12. Develop and implement an Operation Succession Plan.
13. Protect the wells from physical damage. [Recommended Standards for Water Works 3.2.4.10.e]
14. Modify the overflow on the ground-level storage tank so the outlet is at an elevation between 12 and 24 inches above the ground surface. [Recommended Standards for Water Works 7.07]
15. Elevate each manhole on a ground level or flat roof structure at least 24 inches above the top of the tank or covering sod, whichever is higher. [Recommended Standards for Water Works 7.0.8.2]
16. Obtain a copy of the well construction logs. [Recommended Standards for Water Works 3.2.5.4]
17. Implement the Source Water Protection Plan.
18. Ensure total developed groundwater source capacity is equal to or exceeds the design maximum day demand of the water system. [Recommended Standards for Water Works 3.2.1.1]
19. Ensure all piping and chemical feed lines are identified and color coded according to Recommended Standards for Water Works 2.14 and 5.1.12.
20. Fit each access manhole on a ground level or flat roof water storage structure with a solid water tight cover which overlaps a framed opening and extends down around the frame at least two inches. The frame shall be at least four inches high. Each cover shall be hinged on one side, and shall have a locking device. [Recommended Standards for Water Works 7.0.8.2]

#### Summary of Reminders

1. Efforts should be taken to replace lead service lines and lead goose necks as they are discovered.
2. Disinfection residuals were sampled during this sanitary survey and discussed with the operator. At the SEP, the free chlorine was 3.1 mg/L and the total chlorine was 3.2 mg/L. Based on those values it appears the water supply is using free chlorine as the disinfectant.
3. Complete the lead service line inventory and submit it to the Iowa DNR by October 16, 2024.



# Service Report

REF: Job# 23-2617C Inspection/Evaluation of RO Trains  
Riverside Water Treatment Plant  
3126 Hwy 22  
Riverside, IA 53572

Attn: Steve Kramer w/PeopleService Inc.  
PH: (319) 721-1825  
EM: skramer@peopleservice.com

## Service Report Summary:

**6/12/2023-** Due to a flight delay out of Sarasota, FL, I was unable to make my connection in Charlotte, NC to Cedar Rapids, IA. I was rescheduled for a flight to Cedar Rapids the next morning, 6/13/23. I contacted Steve Kramer and informed him I would be arriving at the Riverside WTP between 2 PM-3 PM on 6/13/23.

**6/13/2023-** Arrived on-site by 2:45 PM.

Met with Steve Kramer, Dave Schechington-Engineer w/ Veestra & Kimm and two (2) personnel with the City of Riverside. Asked Steve if he had the lab analysis results on the raw well water, post-filtered water, and the permeate water samples that I requested he should perform before this trip. At this time, the lab analysis results were not completed. (NOTE: During the time of completing this service report, Steve received the lab analysis results, and I have included copies within this report as reference.)

Asked Steve if he could provide some history about the operation, data logs and maintenance conditions on the three (3) RO trains, while we performed a walk-through inspection of the entire RO WTP process system(s). **Steve stated that they have two (2) raw water wells, #7 and #8. Well #8 is currently down for valve and piping repairs, and they are operating on well #7 only. Well #7 was last serviced in Dec 2021 and well #8 was last serviced in May 2023 per Steve's knowledge of past maintenance records.** The 10-micron bag filters in series flow to the 5-micron melt blown cartridge prefilters on the raw well water have been consistently fouling, **from monthly replacement to currently bi-weekly replacement.** The RO trains used to require membrane cleaning every 6-8 months and currently require cleaning by 2-3 weeks. After performing a membrane cleaning, Steve observed that each of the RO trains would produce slightly higher permeate flow, **yet the RO trains would revert back to the prior fouled state within 1-3 weeks of operation.** RO #1 train seems to foul faster within 1-2 weeks after cleaning.

Picture of the three (3) RO Trains



RO #1 Train (Left Side)

RO #2 (Center)

RO #3 (Right Side)

Upon completing the system walk-through inspection, Steve showed me the condition of a recently replaced 10-micron bag filter and a 5-micron melt blown poly cartridge filter installed on the raw well water pretreatment. Both types of filters were heavily fouled with brownish-colored cake-like sediment, indicating possible iron, iron sulfate and/or iron-reducing bacteria fouling from the wells. I took a small sample of the brownish sediment out of the used bag filter and performed a basic acid (HCL) solution test on it. The sediment quickly dissolved within the test vial. This is a good indication that the foulant could be removed from the RO membranes with proper use of acid and caustic chemical cleaning solutions.

**Raw well water testing results performed on-site:**

**Water hardness: 22 GPG or 376 PPM**

**Conductivity: 564 uS**

**pH: 7.5**

**Temp: 61 F or 16 C**

**Color: Slight tint**

**ORP: -90 mV (Void of any Oxidation Reducing Potential oxidants)**

I did not have an iron test kit with me, and Steve stated he has performed iron tests on the raw well water with results up to 2-3 PPM.



10 Micron Bag Filter



5 Micron Cartridge Filter



Acid Test on Bag Filter Foulant



Asked Steve to start up RO #1 train only, so I could evaluate the current operating conditions of a single RO train. Observed permeate water spraying out of the 4" sch80 PVC vertical pipe where it is glued into the tee on the 6" sch80 PVC permeate header piping. After observing the residual brown stains on the RO #1 pressure vessels and the piping directly below the leaking permeate pipe, I would conclude that iron residual has been passing through the RO membranes into the final permeate. The 1<sup>st</sup> stage pump VFD setting was set at 55 hertz and the 2<sup>nd</sup> stage booster pump VFD setting was at 55 hertz. The total permeate flowmeter indicated 134 GPM, 1<sup>st</sup> stage permeate flow was calculated at 106 GPM, 2<sup>nd</sup> stage permeate flowmeter indicated 28 GPM, and concentrate flowmeter indicated 131 GPM. Total flow into RO #1 train was calculated at 265 GPM. (NOTE: Data readings are recorded on the RO Data Logs included with this report.)



RO #1 Train- 4" sch80 PVC Permeate pipe into the 6" sch80 PVC Common Permeate Heading pipe is cracked at the Tee insert.

**(NOTE: The RO trains do not have a flowmeter installed on the 1<sup>st</sup> stage permeate lines.)**

To determine the 1<sup>st</sup> stage permeate flowrate per RO Train, you use the total permeate flowmeter reading and subtract the 2<sup>nd</sup> stage permeate flowrate reading, to calculate the 1<sup>st</sup> stage permeate flowrate.

Each RO train is designed to produce a total permeate flowrate of 226 GPM with concentrate flowrate set at 75 GPM. Per the RO design projections, the 1<sup>st</sup> stage permeate flowrate should be 157 GPM, 2<sup>nd</sup> stage permeate flowrate should be 69 GPM, concentrate flowrate should be 75 GPM, and total permeate flow should be 226 GPM. This is based on operating at 75% recovery at 98% rejection and is dependent on changes to the feedwater conditions.

RO #1 train is currently operating at 50.6% recovery at 97% rejection. Both the 1<sup>st</sup> and 2<sup>nd</sup> stage membranes are extremely fouled with the 2<sup>nd</sup> stage membranes possibly compacted to the point that a membrane cleaning may not restore the membranes back to acceptable % rejection.

RO #2 train was started next and I observed similar operational conditions and data readings as with RO #1 train. The 1<sup>st</sup> stage pump VFD setting was at 55 hertz and the 2<sup>nd</sup> stage booster pump VFD setting was at 55 hertz. The total permeate flowmeter indicated 130 GPM, 1<sup>st</sup> stage permeate flow was calculated at 114 GPM, 2<sup>nd</sup> stage permeate flow indicated 14 GPM, and concentrate flowmeter indicated 131 GPM. Total flow into RO #1 train was calculated at 261 GPM.



I recorded the current operating data, performed water testing, took pictures, and inspected the conditions of the mechanical and electrical components on RO #1 and RO #2 trains.

(NOTE: RO #3 was not started up at this time. Steve confirmed to me that the condition and operational data on RO #3 was similar to the operational data I recorded on RO #1 and RO #2.)

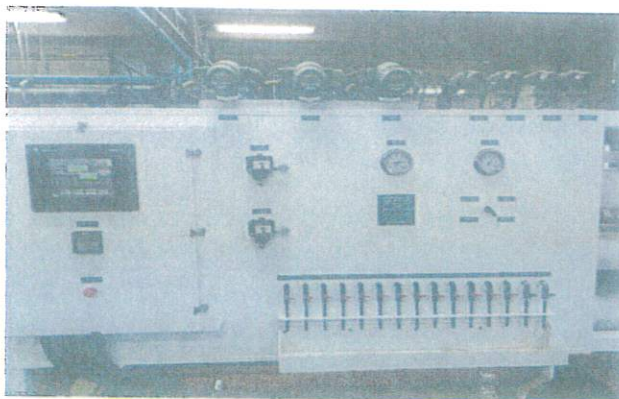
Dave Schechington asked if I would look at some of the piping issues with him. He asked about lowering the overhead well water feedwater piping into the bag filter housing, relocating the conductivity and pH sensors installed into the overhead final permeate-raw water blending pipe line, the raw well water pre-flush pipe lines and about additional support brackets or braces needed on the piping. I offered recommendations based upon my 40 years of experience working on water treatment systems.

I informed Steve and Dave that I had another customer issue scheduled for tomorrow, but I could come back on Thursday 6/15/23. They both agreed, and we left the site by 7 PM.

**6/15/2023**- Arrived on-site by 2:00 PM.

Met with Steve, Dave and one additional City of Riverside employee. RO #1 and RO #2 train were both operating. I reviewed the RO design projections with Steve and asked if we could make some adjustments on the RO trains.

Started on RO #1 by first adjusting the VFD (55) hertz setting down on the 2<sup>nd</sup> stage booster pump per the RO HMI touchscreen panel. The HMI touchscreen responded with the new setting I entered at 30 Hz, and we both observed the 2<sup>nd</sup> stage booster pump slow down and applied pressure decrease into the 2<sup>nd</sup> stage array. I then made adjustments to the manual concentrate control valve to reduce the concentrate flow down to 80 GPM. Allowed the RO #1 to settle for a few minutes and readjusted the 2<sup>nd</sup> stage booster pump setting down to 20 Hz. Made a slight increase adjustment on the 1<sup>st</sup> stage pump to 57 Hz and allowed the RO train to settle. The adjustments I made by lowering the pressure into the 2<sup>nd</sup> stage membranes are a temporary aide to reduce the over-fluxing through the 2<sup>nd</sup> stage membranes likely caused by scaling and compaction of foulants, which has greatly reduced the available membrane surface area.



RO #1 Train

Performed the same adjustments on RO #2, and found the RO HMI touchscreen hertz setting for the 2<sup>nd</sup> stage booster pump was non-responsive. It would display on the HMI touchscreen, yet the 2<sup>nd</sup> stage booster pump motor would not respond to the new setting command. Checked the VFD main controller within the MCC room and found the actual hertz setting was at 57 Hz. We adjusted the VFD main controller setpoint to 20 Hz and observed the 2<sup>nd</sup> stage booster pump motor respond to the lower hertz command. However, the hertz setting displayed on the RO HMI touchscreen did not change. I manually entered in 20 Hz on the RO #2 HMI touchscreen for reference only. This issue will require trouble-shooting (performed by others) on the VFD (SCADA System) located within the MCC room to the RO trains. The adjustments I made by lowering the pressure into the 2<sup>nd</sup> stage membranes are a temporary aide to reduce the over-fluxing through the 2<sup>nd</sup> stage membranes likely caused by scaling and compaction of foulants, which has greatly reduced the available membrane surface area.



RO #2 Train

Inspected RO #3 train (not operating at this time) with Steve and he pointed out known issues with the mechanical or instrumentation components on the system. I took pictures and recorded the issues.



RO #3 Train



Inspected the cleaning skid for the RO membranes. Overall, the cleaning skid and chemical mixing solution tank are in good condition. I observed with power "ON" to the control panel that the disconnect switch, the HOA switches, and the indicator lights were all operational. Steve informed me that the flowmeter and heaters are still operating properly.



CIP SKID FRT



CIP BACK END

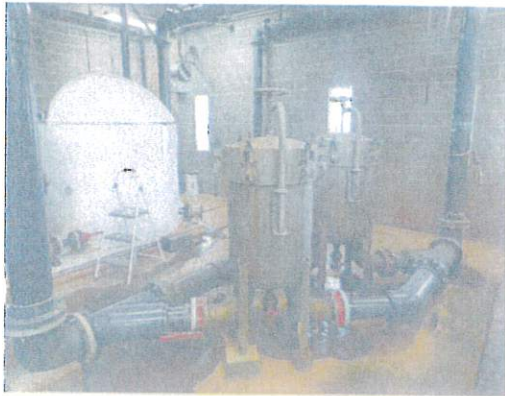
Inspected the feedwater/total permeate monitoring & sampling panel located under the raw feedwater piping lines. Due to the piping leaks above the panel, all of the LCD screens on the water quality monitors are not working and need to be replaced. The NEMA 4X Digital pressure monitors are working and indicating close to the Analog pressure gauges. They should be cleaned, tested and re-calibrated. The differential pressure monitors are in fair shape, mainly staining on the 316SS top cover plates. They should be cleaned and fully tested. The FRP panel is in good condition and the stains could be removed with proper FRP-approved cleaners.



Feedwater/Total Permeate Monitoring & Sampling Panel



Inspected the feedwater bag filter housings and cartridge filter housings. Steve informed me that the bag filter #1 directly off the Y-pipe fitting was loading up faster than the bag filter #2. He has seen a similar loading-up issue with the "center" cartridge filter housings downstream of the bag filter housings. Overall, the housings are in good condition. Mostly, staining and minor drips from some connections. **NOTE: Any leaks will allow air to enter into the system which will cause dissolved iron to oxidize.** Reviewed my inspection with Steve and we left the site by 6:30 PM.



10 Micron Bag Filter Housings



5 Micron Cartridge Filter Housings

RO Trains and Associated Systems Pictures During the Inspection



RO #1 FRT END



RO #1 BACK END



RO #2 FRT END



RO #2 BACK END



RO #3 FRT END



RO #3 BACK END



WELL WATER FLUSH



RO TRAINS COND & PH



Recommendations:

Per my observation of the fouled bag and cartridge pretreatment filters, I would conclude that iron and possibly iron-reducing bacterial directly from the well (feedwater) source is being introduced to air within the well and/or the well water piping lines. Based on the results of the lab analysis performed on the raw well water sample, iron is present a 1.7 PPM. Per recent communication with Steve, he informed me that additional testing was performed on well #7 and confirmed iron-reducing bacteria is present.

Based on inspection/evaluation of the three (3) RO trains, I would conclude that the RO membranes are severely fouled and possibly compacted beyond the benefit of performing additional membrane cleanings. To confirm this conclusion, I would recommend selecting one of the RO trains for membrane testing and analysis on the foulants. This requires removing four (4) membranes from a RO train. On the 1<sup>st</sup> stage array, one (1) membrane is pulled from the feed side and one (1) membrane is pulled from the concentrate side. On the 2<sup>nd</sup> stage array, one (1) membrane is pulled from the feed side and one (1) membrane is pulled from the concentrate side. The membranes are labeled per RO train, pressure vessel number, serial # and position removed from the pressure vessel. The membranes need to be bagged and sealed, then shipped out for testing and analysis on the foulants. Based on the results of the membrane testing and analysis on the foulants, you will be able to confirm if the membranes can be restored to design specifications per chemical cleaning, or if the membranes should be replaced with new membranes.

Overall condition, (structural, mechanical and electrical) of the RO trains is "Good". Except for the major leak on RO #1 permeate line teed into the common permeate header piping, some minor drips were observed on RO end caps and piping fittings. The RO pump/motors are working respectfully, although there is the issue(s) with the VFD hertz setpoint on the RO HMI touchscreen panel(s) not working and/or not reading accurately. Observed a couple of the digital flow and pressure transmitter/monitor(s) flickering ON/OFF. Analog pressure gauge(s) per the selector valve are functioning well. The older model conductivity monitors with LCD screens on each of the RO trains are not able to display and will need to be replaced with new model LED screens.

I would like to thank Steve and Dave for their assistance during the inspection.  
I enjoyed meeting both of you.

Sincerely,

*Keith Summerford*

Keith Summerford, CWS-V  
Service Coordinator  
Komline-Harn RO  
Report Completed 7/18/2023

An "Action List" has been created to enhance and summarize this report.

## Action List

### Existing Items:

1. Based on the results of the current well water laboratory analysis and additional testing confirming the presents of Bacterial Iron, a certified well drilling/pump company should be used to perform disinfection of the well and to inspect the well(s) casing, well screen, annular seal and well cap. The submersible pump should be fully inspected including the check valve, fittings, isolation valves and the piping for any damage or leaks. Hydraulic testing should be performed on the entire feedwater piping lines for locating any leaks. Testing should be performed to determine if air is being drawn into the feedwater piping after the well pump is turned off and if air is being drawn into the feedwater piping when the well pump is operating.
2. Well water samples should be re-taken for testing by a certified water testing laboratory along with bacterial tests performed. After confirming no iron bacteria is present, proper measures should be performed to disinfect and flush clean all of the feedwater piping from the well(s) through the two (2) pre-filter housings. (Do allow disinfection (oxidants) to enter the RO Trains, the RO trains must be isolated (valved off) during the feedwater piping disinfection period.) The RO trains require the use of non-oxidizing chemicals for disinfecting and cleaning in order to not damage the RO membranes.)
3. Hydraulic testing should be performed after any modifications and/or repairs are performed on the feedwater piping and the common final permeate header piping lines. Disinfection of the feedwater and final permeate piping lines should be performed after any modifications and/repairs are completed.
4. The VFD controllers within the MC room should be inspected and tested by a company qualified in VFDs, instrumentation and control loops.
5. One of the RO trains should be selected for membrane testing and analysis on the foulants. Upon results of the membrane testing, Harn R/O will assist you with determining if membrane cleaning will be effective or replacing the membranes is required.
6. Exterior cleaning of the RO trains should be performed in order for the operators to easily locate the source of water leaks and to perform repairs within a timely manner.



New Items:

1. The Yokogawa digital flow and pressure transmitters/monitors on all three (3) RO trains and on the remote prefilter monitoring panel need to be tested and calibration.
2. The McDaniel analog pressure gauges on all three (3) RO trains and on the remote prefilter monitoring panel need to be tested and calibration.
3. The LCD display screens on all of the older model Yokogawa conductivity and pH LCD controllers/monitors do not display and require replacement. All pH sensors require replacement. All conductivity sensors need to be cleaned, tested and calibrated. If a conductivity sensor fails calibration testing, the sensor will need to be replaced.
4. All instrumentation and PLC-HMI controls should be inspected and tested on the RO trains. Test and confirm HMI touchscreens are fully functioning per SCADA interface loop to the MCC room.
5. Per results of the membrane testing, membrane cleaning or membrane replacement is required.
6. All RO train pump motors should be tested for voltage and amperage draw. Motor bearings should be lubricated per the manufacturer's recommended maintenance schedule and the pump mechanical seals checked daily or weekly for any water leaks.
7. Recommend operators have a Myron-L Ultrameter 6PIIFCE and a Silt Density Index (SDI) test kit for performing daily or weekly water quality testing on the RO trains.

Per your request, Harn R/O would be please to provide a quote on parts and services per the above list of recommended "New Items".

## DATA LOGS PERFORMED On RO #1 and RO #2 TRAINS

Facility: **Riverside, IA** Location: **Riverside VTP** Train #: **1** Telephone: **(319) 721-1929 Steve Kramer** Month/Year: **June 15, 2023**

DATE	Bag Filter				Cartridge Filter				RO Feed	Conductivity	RO Feed	Pressure (PSIG)				Flow (GPH)				Oper.					
	100 Micron	5 Micron	1 Micron	0.5 Micron	5 Micron	1 Micron	0.5 Micron	0.1 Micron	PSI	µS/cm	PSI	1st Stage Feed	2nd Stage Feed	3rd Stage Feed	Total Pressure	Total Flow	1st Stage	2nd Stage	3rd Stage						
1																									
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									
13	Current Readings No Adjustments																								
14	64	63	1	63	62	1	2800.2	7.5	661	17.0	872µS	58.0	180	180	200	190	7	138	167	20	123	30.0%	38	8.8	159 gal Blended
15	After Adjustments																								
16							2813.2	7.5	664	22.0	86.5µS	56.0	170	171	185	9	111	110	21	80	32.1%	36	8.7	161 gal Blended	
17												57 µS			25 µS										
18																									
19																									
20																									
21																									
22																									
23																									
24																									
25																									
26																									
27																									
28																									
29																									
30																									
31																									

Facility: **Riverside, IA** Location: **Riverside VTP** Train #: **2** Telephone: **(319) 721-1929 Steve Kramer** Month/Year: **June 15, 2023**

DATE	Bag Filter				Cartridge Filter				RO Feed	Conductivity	RO Feed	Pressure (PSIG)				Flow (GPH)				Oper.					
	100 Micron	5 Micron	1 Micron	0.5 Micron	5 Micron	1 Micron	0.5 Micron	0.1 Micron	PSI	µS/cm	PSI	1st Stage Feed	2nd Stage Feed	3rd Stage Feed	Total Pressure	Total Flow	1st Stage	2nd Stage	3rd Stage						
1																									
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									
13	Current Readings No Adjustments																								
14	64	63	1	63	62	1	1828.1	7.5	638	62.0	69.2µS	59.0	175	169	200	130	8	229	114	16	120	49.0%	29	8.3	130 gal Blended
15	After Adjustments																								
16							1845.2	7.5	664	71.0	87.4µS	58.0	170	170	182	9	136	143	15	82	55.9%	36	8.7	130 gal Blended	
17												57 µS			25 µS										
18																									
19																									
20																									
21																									
22																									
23																									
24																									
25																									
26																									
27																									
28																									
29																									
30																									
31																									



### LABORATORY ANALYSIS-CURRENT RESULTS

<b>STATE HYGIENIC LABORATORY</b>		ANALYTICAL REPORT		1-800-421-IOWA (4692)
Collection Location		Collector and Phone	Client Reference	Accession #
Well #7 water top		kramel steven 319/721-1820		2290228
RIVER SIDE,		Collected	Received	Project
		2023-06-07 13:40	2023-06-07 15:20	
Report To	PEOPLE SERVICE			Sample Description
	60 N GREEN ST			Sample Type
	RIVERSIDE, IA 52327			Drinking Water
				Sample Source
				Sample Note(s)
				1

**RESULTS OF ANALYSIS - FINAL REPORT**

TEST	RESULT (mg/L)	QUANTITY	ANALYSIS NOTE(S)
Chloride, EPA 300.0			
Chloride	1.2	0.2	
Sulfate, EPA 300.0			
Sulfate	40	0.2	
Total Hardness as CaCO <sub>3</sub> , SM 2340 B			
Total Hardness	270	5	
Total Dissolved Solids, SM 2540 C			
Total Dissolved Solids	360	1	
Total Suspended Solids, USGS 1-3765-85			
Total Suspended Solids	1	1	
Metals, EPA 200.7			2
Calcium	63	1	
Iron	1.7	0.02	
Magnesium	24	0.5	

<b>STATE HYGIENIC LABORATORY</b>		ANALYTICAL REPORT		1-800-421-IOWA (4692)
Collection Location		Collector and Phone	Client Reference	Accession #
Well #7 top after filters		kramel steven 319/721-1820		2290229
RIVER SIDE,		Collected	Received	Project
		2023-06-07 13:45	2023-06-07 15:20	
Report To	PEOPLE SERVICE			Sample Description
	60 N GREEN ST			Sample Type
	RIVERSIDE, IA 52327			Drinking Water
				Sample Source
				Sample Note(s)
				1

**RESULTS OF ANALYSIS - FINAL REPORT**

TEST	RESULT (mg/L)	QUANTITY	ANALYSIS NOTE(S)
Chloride, EPA 300.0			
Chloride	1.2	0.2	
Sulfate, EPA 300.0			
Sulfate	38	0.2	
Total Hardness as CaCO <sub>3</sub> , SM 2340 B			
Total Hardness	270	5	
Total Dissolved Solids, SM 2540 C			
Total Dissolved Solids	350	1	
Total Suspended Solids, USGS 1-3765-85			
Total Suspended Solids	3	1	
Metals, EPA 200.7			2
Calcium	67	1	
Iron	1.7	0.02	
Magnesium	24	0.5	

Collection Location to train #1 permeate top	Collector and Phone Iramel steven 319/721-1820	Client Reference	Accession # 2290230
RIVER SIDE,	Collected 2023-06-07 15:00	Received 2023-06-07 15:20	Project
PEOPLE SERVICE 60 N GREEN ST RIVERSIDE, IA 52327	Sample Description		Sample Type Drinking Water
	Sample Source		Sample Note(s) 1

RESULTS OF ANALYSIS - FINAL REPORT

TEST	RESULT (mg/L)	QUANT. LIMIT	ANALYSIS NOTE(S)
Chloride, EPA 300.0	<1.0	1	
Sulfate, EPA 300.0	<1.0	1	
Total Hardness as CaCO <sub>3</sub> , SM 2340 B	<5	5	
Total Dissolved Solids, SM 2540 C	16	1	
Total Suspended Solids, USGS I-3765-85	<1	1	
Calcium, EPA 200.7	<1	1	2
Iron	<0.02	0.02	

Collection Location to train #2 permeate top	Collector and Phone luiz ramos 319/721-1820	Client Reference	Accession # 2290231
RIVER SIDE,	Collected 2023-06-07 13:55	Received 2023-06-07 15:20	Project
PEOPLE SERVICE 60 N GREEN ST RIVERSIDE, IA 52327	Sample Description		Sample Type Drinking Water
	Sample Source		Sample Note(s) 1

RESULTS OF ANALYSIS - FINAL REPORT

TEST	RESULT (mg/L)	QUANT. LIMIT	ANALYSIS NOTE(S)
Chloride, EPA 300.0	<1.0	1	
Sulfate, EPA 300.0	3.2	0.2	
Total Hardness as CaCO <sub>3</sub> , SM 2340 B	24	5	
Total Dissolved Solids, SM 2540 C	32	1	
Total Suspended Solids, USGS I-3765-85	<1	1	
Calcium, EPA 200.7	5.8	1	2
Iron	0.13	0.02	

**ENGINE GENSET**

**B030-53229-0074**  
 LABEL#: OPTION2PREPAID  
 SHOP JOB NUM : CE48883-01-  
 SL2  
 SAMPLE SHIP TIME (days) : 2  
**CITY OF RIVERSIDE**  
 CE WORK ORDER PREFIX  
 CONTACTS: CEDAR RAPIDS  
 POWER SYSTEMS -  
 RECEIVED DATE: 18-Aug-23

*WTP*

**EQUIP NUM: 06-10022**  
**CAT C15**  
**No Action Required**

**SERIAL NUMBER: C5E00651**  
**COMP SERIAL NUM: FSE00791**

Interp By: Sarah Banowetz  
 Interpreted On: 22-Aug-23

FIRST SAMPLE/NO TREND ESTABLISHED. WEAR PATTERN APPEARS TO BE NORMAL ON A FIRST SAMPLE BASIS.  
 RESAMPLE AT NORMAL INTERVAL TO ESTABLISH A TREND. CONTINUE TO MONITOR COMPARTMENT BY SAMPLING AT  
 RECOMMENDED INTERVALS.



**SAMPLE INFORMATION**

Sampled Date 15-Aug-23  
 Sample Id B030-53229-0074  
 Lab Date 17-Aug-23  
 Meter [Hr] 339  
 Meter On Fluid 339  
 Fluid Brand CAT  
 Fluid Weight 10W-30  
 Fluid Type  
 Fluid Change Y  
 Filter Change Y  
 Total Fluid Added 0

For additional sample history, go to:

[my.cat.com](http://my.cat.com)

**CONDITION / CONTAMINATION**

15-Aug-23

**VISCOSITY (CENTISTOKES) ASTM D445**

V100 Viscosity at 100 C 13.19

**TOTAL BASE NUMBER (mg KOH/g) ASTM D1739**

TBN Total Base Numbe 10.9

**INFRARED (FIR) ASTM E2412**

ST Soot 0  
 OXI Oxidation 15  
 SUL Sulfur Products 19  
 NIT Nitration 0

**WEAR LEVELS / ADDITIVES**

15-Aug-23

**ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]**

Cu	Copper	2
Fe	Iron	2
Cr	Chromium	0
Al	Aluminum	0
Pb	Lead	0
Sn	Tin	0
Si	Silicon	5
Na	Sodium	2
K	Potassium	1
Mo	Molybdenum	51
Ni	Nickel	0
Ag	Silver	0
Ti	Titanium	0
V	Vanadium	0
Mn	Manganese	0
Cd	Cadmium	0
Ca	Calcium	1243
P	Phosphorus	748
Zn	Zinc	949
Mg	Magnesium	842
Ba	Barium	0
B	Boron	59

**WATER**

W Water N

**FUEL**

F Fuel N

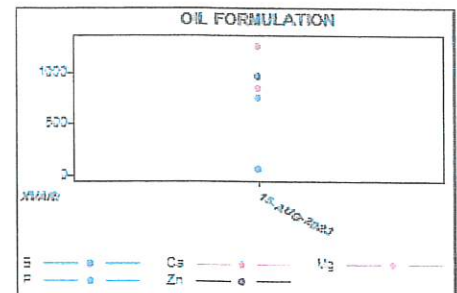
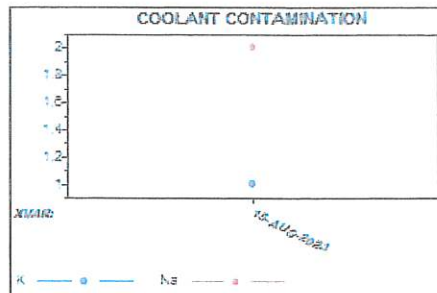
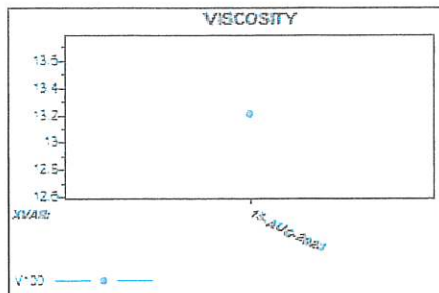
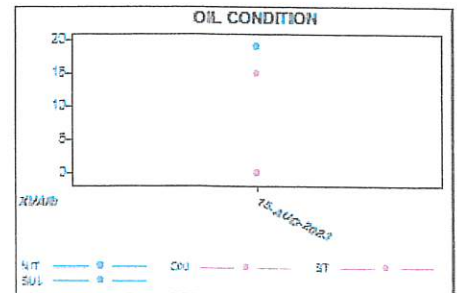
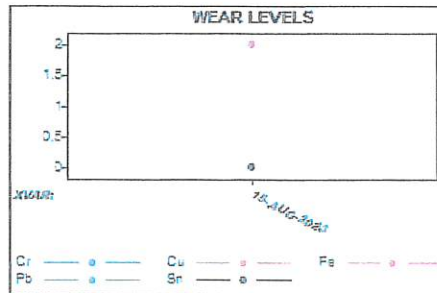
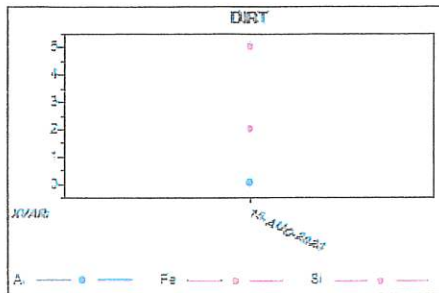


ENGINE GENSET  
SERIAL NUMBER: C5E00651  
EQUIP NUM: 06-10022  
CAT C15  
COMP SERIAL NUM: FSE00791

B030-53229-0074



No Action Required



Report Comment

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>

LORY  
CITY OF RIVERSIDE  
PO BOX 188  
RIVERSIDE, IA 52327



**RADIATOR**

EQUIP NUM: 06-10022

CAT C15

No Action Required

Interp By: Dipali Rote

Interpreted On: 23-Aug-23

B030-53229-2004

LABEL#: LEVEL2PREPAID

SHOP JOB NUM : CE48883-01-SL2

SAMPLE SHIP TIME (days) : 2

CITY OF RIVERSIDE

CE WORK ORDER PREFIX

CONTACTS. CEDAR RAPIDS

POWER SYSTEMS -

RECEIVED DATE: 21-Aug-23

MAGNETIC SOLIDS MAY INDICATE LOCALIZED HOT SPOTS IN THE COOLING SYSTEM. ALL OTHER ANALYSIS READINGS ARE WITHIN THE EXPECTED RANGE FOR THIS COOLANT SAMPLE. CONTINUE TO SAMPLE AT THE RECOMMENDED INTERVAL.

*WTP*

**SAMPLE INFORMATION**

For additional sample history, go to:

[my.cat.com](http://my.cat.com)

Sampled Date	15-Aug-23
Sample Id	B030-53229-2004
Lab Date	17-Aug-23
Meter [Hr]	339
Meter On Fluid	339
Fluid Brand	UNKNOWN
Fluid Weight	
Fluid Type	UNK
Fluid Change	N
Filter Change	
Total Fluid Added	0

**ADDITIONAL CHARACTERISTICS**

15-Aug-23

**REFRACTIVE INDEX**

GL	Glycol (%)	60
FP	Freeze Point (°C)	-53
BP	Boil Point (°C)	109

**CONDUCTIVITY (µS/cm)**

CON	Conductivity	5885
-----	--------------	------

**ADDITIONAL ANALYTES (PPM)**

MoO4	Molybdate	1174
BO3	Borate	0
SiO3	Silicate	48
PO4	Phosphate	26
TH	Total Hardness	57

**CORROSION LEVELS/ CHEMISTRY**

15-Aug-23

**ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D4130 [COOLANT]**

Na	Sodium	5962
K	Potassium	21
Mo	Molybdenum	704
Cu	Copper	1
Fe	Iron	1
Pb	Lead	0
Sn	Tin	1
Al	Aluminum	1
Zn	Zinc	0

**ORGANIC ANALYSIS (PPM) ASTM D5627**

SAC	Sebacate	1783
TT	Tolytriazole	1660
EHA	2-Ethylhexanoic A	19981
BT	1H-Benzotriazole	<100
Benzo	Benzoic Acid	<300
Tol_a	P-Toluic Acid	<150
MBT	2-Mercaptobenzo	<200

**ANION ANALYSIS (PPM) ASTM D4327**

NO2	Nitrite	1012
NO3	Nitrate	599
GLO	Glycolate	1278
CL	Chloride	310
SO4	Sulfate	135

**pH ASTM D1287**

pH	pH	7.9
----	----	-----

**PHYSICAL CHARACTERISTICS**

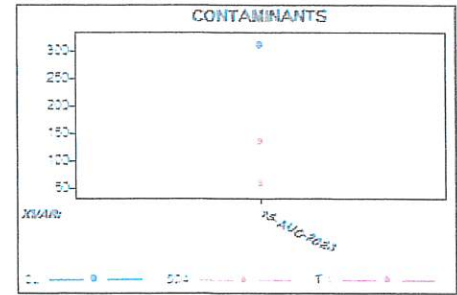
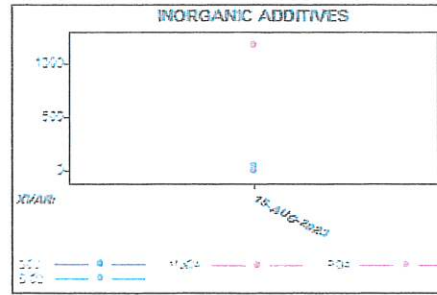
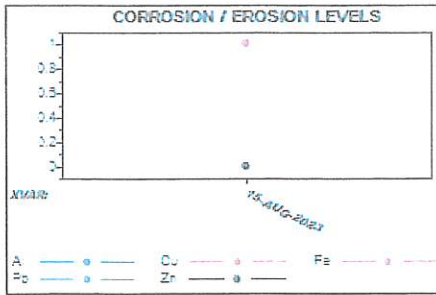
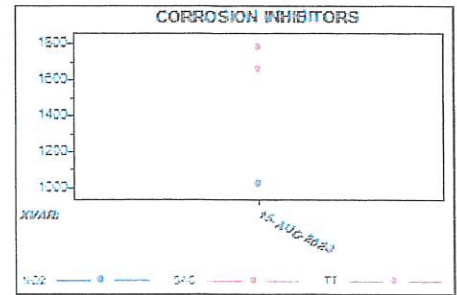
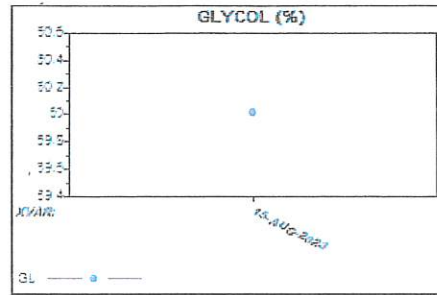
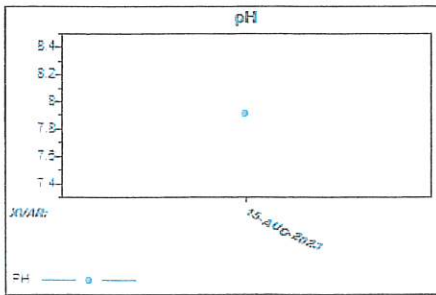
15-Aug-23

**PHYSICAL**

Color	Color	red
App	Appearance	clear
Odor	Odor	norm
Oil	Oil	none
Foam	Foam	norm
PAm	Precip Amount	trace
PApp	Precip Appearance	fine
PCol	Precip Color	blk precip
PProp	Precip Property	mag

RADIATOR  
 SERIAL NUMBER: C5E00651  
 EQUIP NUM: 08-10022  
 CAT C15

B030-53229-2004  
  
 No Action Required



**Report Comment**

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>

LORY  
 CITY OF RIVERSIDE  
 PO BOX 188  
 RIVERSIDE, IA 52327

**ENGINE GENSET**

EQUIP NUM: 08-10001

CAT C18

**No Action Required**

SERIAL NUMBER: **STD00179**

COMP SERIAL NUM: PDH00188

Interp By: Sarah Banowetz

Interpreted On: 23-Aug-23

B030-53229-0075

LABEL#: OPTION2PREPAID

SHOP JOB NUM : CE48889-01-

SL2

SAMPLE SHIP TIME (days) : 2

CITY OF RIVERSIDE

CE WORK ORDER PREFIX

CONTACTS. CEDAR RAPIDS

POWER SYSTEMS -

RECEIVED DATE: 18-Aug-23

FIRST SAMPLE/NO TREND ESTABLISHED. WEAR PATTERN APPEARS TO BE NORMAL ON A FIRST SAMPLE BASIS. RESAMPLE AT NORMAL INTERVAL TO ESTABLISH A TREND. CONTINUE TO MONITOR COMPARTMENT BY SAMPLING AT RECOMMENDED INTERVALS.

*WWTP*

**SAMPLE INFORMATION**

For additional sample history, go to:

[my.cat.com](http://my.cat.com)

Sampled Date	15-Aug-23
Sample Id	B030-53229-0075
Lab Date	17-Aug-23
Meter [Hr]	498
Meter On Fluid	498
Fluid Brand	UNKNOWN
Fluid Weight	UNKNOWN
Fluid Type	
Fluid Change	Y
Filter Change	Y
Total Fluid Added	0

**CONDITION / CONTAMINATION**

15-Aug-23

**VISCOSITY (CENTISTOKES) ASTM D445**

V100	Viscosity at 100 C	13.04
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**INFRARED (IFM) ASTM E2412**

ST	Soot	0
OXI	Oxidation	18
SUL	Sulfur Products	20
NIT	Nitration	0

**WATER**

W	Water	N
---	-------	---

**WEAR LEVELS / ADDITIVES**

15-Aug-23

**ELEMENTAL ANALYSIS (PPM) ASTM D6185 [OIL] / ASTM D3130 [COOLANT]**

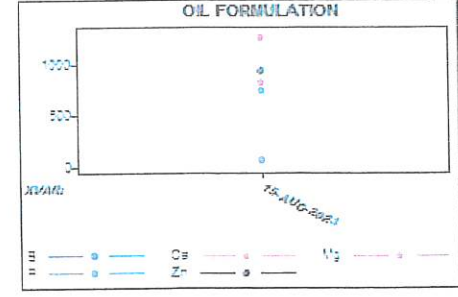
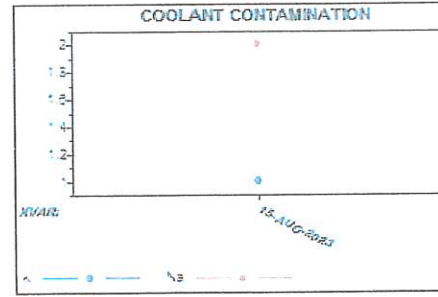
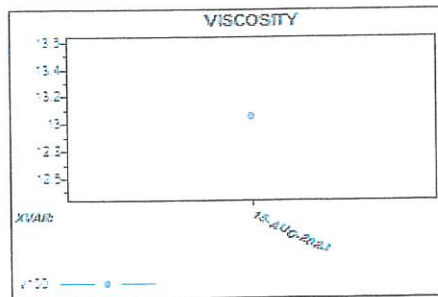
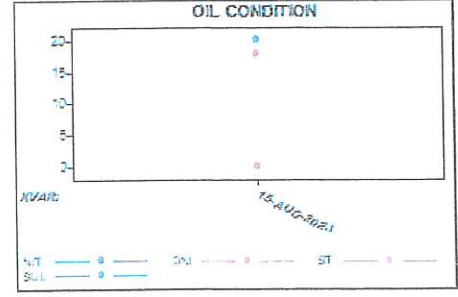
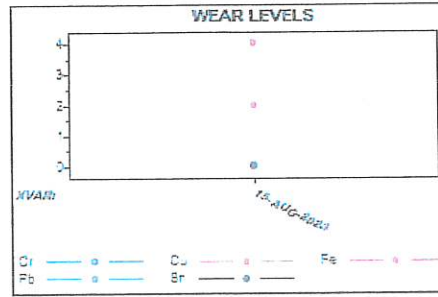
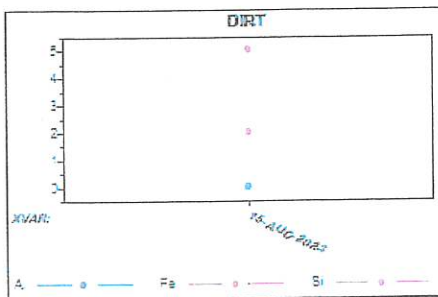
Cu	Copper	4
Fe	Iron	2
Cr	Chromium	0
Al	Aluminum	0
Pb	Lead	0
Sn	Tin	0
Si	Silicon	5
Na	Sodium	2
K	Potassium	1
Mo	Molybdenum	49
Ni	Nickel	0
Ag	Silver	0
Ti	Titanium	1
V	Vanadium	0
Mn	Manganese	0
Cd	Cadmium	0
Ca	Calcium	1247
P	Phosphorus	730
Zn	Zinc	928
Mg	Magnesium	815
Ba	Barium	0
B	Boron	57

**FUEL**

F	Fuel	N
---	------	---

ENGINE GENSET  
 SERIAL NUMBER: STD00179  
 EQUIP NUM: 06-10001  
 CAT C18  
 COMP SERIAL NUM: PDH00188

B030-53229-0075  
  
 No Action Required



Report Comment

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=h8bREJVUrs>

LORY  
 CITY OF RIVERSIDE  
 PO BOX 188  
 RIVERSIDE, IA 52327



**RADIATOR**

EQUIP NUM: 06-10001

CAT C18

**No Action Required**



ALL ANALYSIS READINGS ARE WITHIN THE EXPECTED RANGE FOR THIS COOLANT SAMPLE. CONTINUE TO SAMPLE AT THE RECOMMENDED INTERVAL.

Interp By: Dipall Rote

Interpreted On: 23-Aug-23

B030-53229-2007

LABEL#: LEVEL2PREPAID

SHOP JOB NUM : CE48889-01-

SL2

SAMPLE SHIP TIME (days) : 2

CITY OF RIVERSIDE

CE WORK ORDER PREFIX

CONTACTS, CEDAR RAPIDS

POWER SYSTEMS -

RECEIVED DATE: 21-Aug-23

*WWT/P*

**SAMPLE INFORMATION**

Sampled Date	15-Aug-23
Sample Id	B030-53229-2007
Lab Date	17-Aug-23
Meter [Hr]	498
Meter On Fluid	498
Fluid Brand	UNKNOWN
Fluid Weight	
Fluid Type	UNK
Fluid Change	N
Filter Change	
Total Fluid Added	0

For additional sample history, go to:

[my.cat.com](http://my.cat.com)

**ADDITIONAL CHARACTERISTICS**

15-Aug-23

**REFRACTIVE INDEX**

GL	Glycol (%)	54
FP	Freeze Point (°C)	-43
BP	Boil Point (°C)	108

**CONDUCTIVITY (µS/cm)**

CON	Conductivity	4787
-----	--------------	------

**ADDITIONAL ANALYTES (PPM)**

MoO4	Molybdate	1317
BO3	Borate	0
SiO3	Silicate	39
PO4	Phosphate	1
TH	Total Hardness	8

**CORROSION LEVELS/ CHEMISTRY**

15-Aug-23

**ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D8130 [COOLANT]**

Na	Sodium	5514
K	Potassium	27
Mo	Molybdenum	790
Cu	Copper	1
Fe	Iron	0
Pb	Lead	0
Sn	Tin	1
Al	Aluminum	1
Zn	Zinc	1

**ORGANIC ANALYSIS (PFM) ASTM D5827**

SAC	Sebacate	1670
TT	Tolytriazole	1682
EHA	2-Ethylhexanoic A.	20611
BT	1H-Benzotriazole	<100
Benzo	Benzoic Acid	<300
ToLa	P-Toluic Acid	<150
MBT	2-Mercaptobenzoth	<200

**ANION ANALYSIS (PPM) ASTM D1827**

NO2	Nitrite	1090
NO3	Nitrate	400
GLO	Glycolate	1093
CL	Chloride	<20
SO4	Sulfate	58

**pH ASTM D1287**

pH	pH	8.0
----	----	-----

**PHYSICAL CHARACTERISTICS**

15-Aug-23

**PHYSICAL**

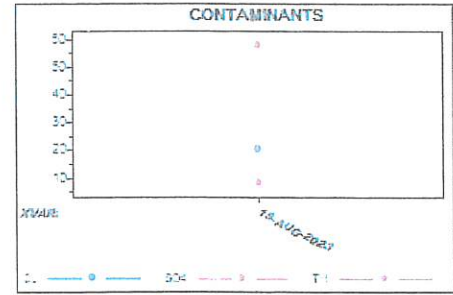
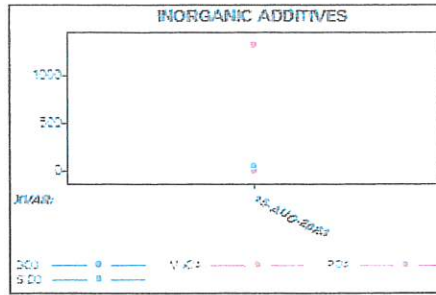
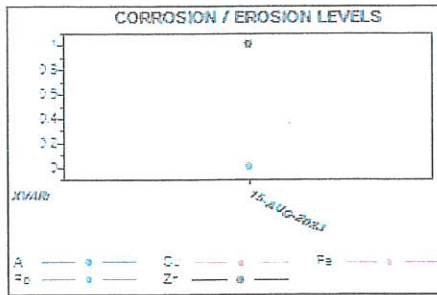
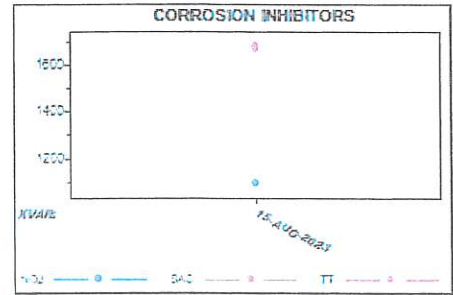
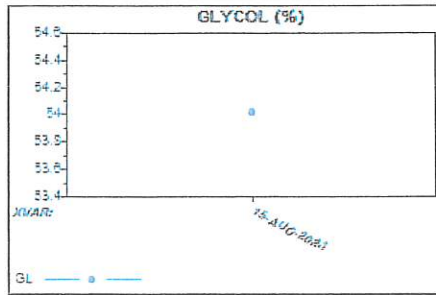
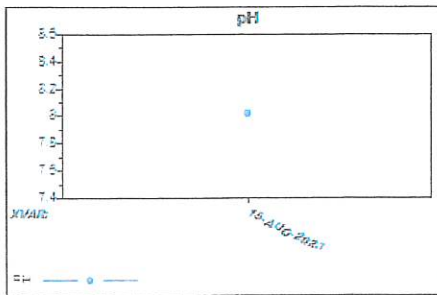
Color	Color	red
App	Appearance	sl cloudy
Odor	Odor	norm
Oil	Oil	none
Foam	Foam	norm
PAmt	Precip Amount	none

RADIATOR  
SERIAL NUMBER: STD00179  
EQUIP NUM: 06-10001  
CAT C18

B030-53220-2007



No Action Required



Report Comment

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUr>

LORY  
CITY OF RIVERSIDE  
PO BOX 188  
RIVERSIDE, IA 52327

**RADIATOR**

EQUIP NUM: EAST LIFT  
 OLYMPIAN D125P1\_OLYMPIAN  
 No Action Required

Interp By: Dipali Rote  
 Interpreted On: 23-Aug-23

B030-53230-2014  
 LABEL#: LEVEL2PREPAID  
 SHOP JOB NUM : CE48885-01-  
 SL2  
 SAMPLE SHIP TIME (days) : 1  
 CITY OF RIVERSIDE  
 CE WORK ORDER PREFIX  
 CONTACTS. CEDAR RAPIDS  
 POWER SYSTEMS -  
 RECEIVED DATE: 21-Aug-23

ALL ANALYSIS READINGS ARE WITHIN THE EXPECTED RANGE FOR THIS COOLANT SAMPLE. CONTINUE TO SAMPLE AT THE RECOMMENDED INTERVAL.

LS #1

**SAMPLE INFORMATION**

	17-Aug-23	20-Sep-16
Sampled Date	17-Aug-23	20-Sep-16
Sample Id	B030-53230-2014	B030-46265-2007
Lab Date	18-Aug-23	21-Sep-16
Meter [Hr]	479	322
Meter On Fluid	318	47
Fluid Brand	CATNGEC	CATNGEC
Fluid Weight		
Fluid Type		
Fluid Change	N	N
Filter Change	0	

**PREVIOUS SAMPLE**

ALL ANALYSIS READINGS ARE WITHIN THE EXPECTED RANGE FOR THIS COOLANT SAMPLE. CONTINUE TO SAMPLE AT THE RECOMMENDED INTERVAL.

For additional sample history, go to: [my.cat.com](http://my.cat.com)

**ADDITIONAL CHARACTERISTICS**

	17-Aug-23	20-Sep-16
<b>REFRACTIVE INDEX</b>		
GL Glycol (%)	51	44
FP Freeze Point (°C)	-38	-30
BP Boil Point (°C)	107	106
<b>CONDUCTIVITY (µS/cm)</b>		
CON Conductivity	4342	2564

**CORROSION LEVELS/ CHEMISTRY**

	17-Aug-23	20-Sep-16
<b>ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D3130 [COOLANT]</b>		
Na Sodium	4432	1854
K Potassium	483	19
Mo Molybdenum	676	3
Cu Copper	0	0
Fe Iron	1	7
Pb Lead	0	5
Sn Tin	0	0
Al Aluminum	0	0
Zn Zinc	0	0

**ADDITIONAL ANALYTES (PPM)**

	17-Aug-23	20-Sep-16
MoO4 Molybdate	1127	4
BO3 Borate	172	1752
SiO3 Silicate	28	143
PO4 Phosphate	290	20
TH Total Hardness	2	0

**ORGANIC ANALYSIS (PPM) ASTM D5927**

	17-Aug-23	20-Sep-16
SAC Sebacate	1394	1465
TT Tolytriazole	1065	629
EHA 2-Ethylhexanoic A	16787	0
BT 1H-Benzotriazole	<100	0
Benzo Benzoic Acid	<300	24
ToLa P-Toluic Acid	<150	0
MBT 2-Mercaptobenzoth	<200	0

**PHYSICAL CHARACTERISTICS**

	17-Aug-23	20-Sep-16
<b>PHYSICAL</b>		
Color Color	red	magenta
App Appearance	clear	cloudy
Odor Odor	norm	norm
Oil Oil	none	none
Foam Foam	norm	norm
PAmt Precip Amount	none	trace

	17-Aug-23	20-Sep-16
<b>ANION ANALYSIS (PPM) ASTM D4327</b>		
NO2 Nitrite	628	1101
NO3 Nitrate	113	965
GLO Glycolate	675	462
CL Chloride	<20	8
SO4 Sulfate	51	21

	17-Aug-23	20-Sep-16
<b>pH ASTM D1287</b>		
pH pH	8.2	9.0



RADIATOR  
 SERIAL NUMBER: NAT00599  
 EQUIP NUM: EAST LIFT  
 OLYMPIAN D125P1\_OLYMPIAN

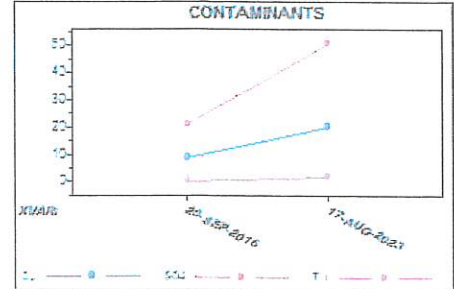
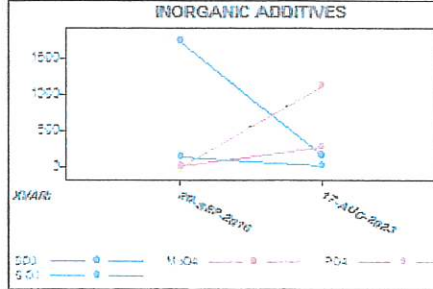
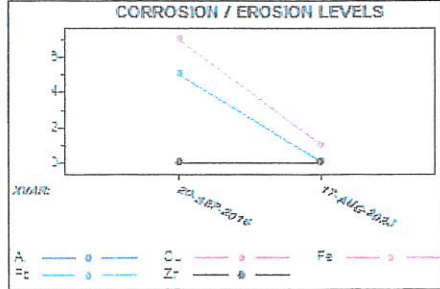
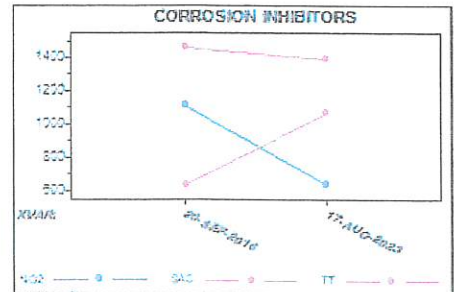
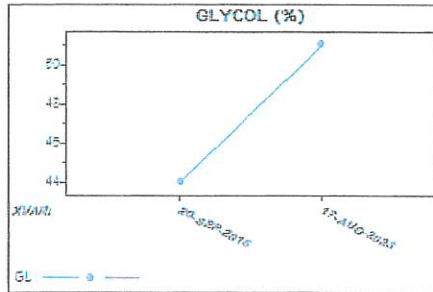
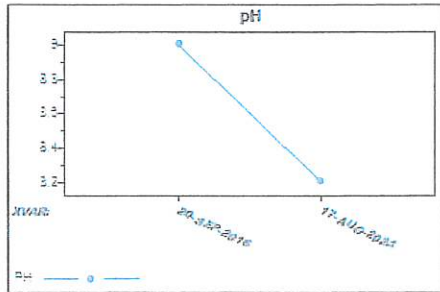
B030-53230-2014

No Action Required

**SAMPLE INFORMATION**

Sampled Date	17-Aug-23	20-Sep-16
Sample Id	B030-53230-2014	B030-46265-2007
Lab Date	18-Aug-23	21-Sep-16
Meter [Hr]	479	322
Meter On Fluid	318	47
Fluid Brand	CATNGEC	CATNGEC
Fluid Weight		
Fluid Type		
Fluid Change	N	N
Filter Change	0	

PApp	Precip Appearance	flake
PCol	Precip Color	blk sol
PProp	Precip Property	mag



**Report Comment**

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>

LORY  
 CITY OF RIVERSIDE  
 PO BOX 188  
 RIVERSIDE, IA 52327

**ENGINE GENSET**

EQUIP NUM: EAST LIFT  
 OLYMPIAN D125P1\_OLYMPIAN  
**No Action Required**

SERIAL NUMBER: NAT00599

Interp By: Sarah Banowetz  
 Interpreted On: 23-Aug-23

B030-53230-0079  
 LABEL#: OPTION2PREPAID  
 SHOP JOB NUM : CE48885-01-  
 SL2  
 SAMPLE SHIP TIME (days) : 1  
**CITY OF RIVERSIDE**  
 CE WORK ORDER PREFIX  
 CONTACTS, CEDAR RAPIDS  
 POWER SYSTEMS -  
 RECEIVED DATE: 18-Aug-23

NOTE LENGTH OF TIME SINCE LAST SAMPLE TAKEN. INTERMITTENT USAGE CAN CAUSE HIGH READINGS. RESULTS OF THE LATEST SAMPLE INDICATE NORMAL WEAR AND TRENDS FOR THIS COMPARTMENT. NO EXCESSIVE WEAR IS INDICATED AT THIS TIME. CONTINUE TO MONITOR COMPARTMENT BY SAMPLING AT RECOMMENDED INTERVALS. SUGGEST RESAMPLE IN 6 MONTHS OR AT HALF THE NORMAL INTERVAL, WHICHEVER COMES FIRST, TO MONITOR TREND.

*LS#1*

**SAMPLE INFORMATION**

	17-Aug-23	20-Sep-16
Sampled Date	17-Aug-23	20-Sep-16
Sample Id	B030-53230-0079	B030-46265-0203
Lab Date	18-Aug-23	21-Sep-16
Meter [Hr]	479	322
Meter On Fluid	157	26
Fluid Brand	CAT	CAT
Fluid Weight	15W-40	15W-40
Fluid Type		
Fluid Change	Y	Y
Filter Change	Y	Y
Kidney Loop		U
	0	

**PREVIOUS SAMPLE**

WEAR METAL ANALYSIS RESULTS ARE NORMAL. INFRARED ANALYSIS RESULTS ARE ACCEPTABLE. WATER/FUEL/GLYCOL PHYSICAL TESTS ARE ACCEPTABLE. NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NEXT NORMAL SERVICE INTERVAL.

For additional sample history, go to: [my.cat.com](http://my.cat.com)

**CONDITION / CONTAMINATION**

	17-Aug-23	20-Sep-16
<b>VISCOSITY (CENTISTOKES) ASTM D445</b>		
V100 Viscosity at 100 C	14.36	13.9

	17-Aug-23	20-Sep-16
<b>TOTAL BASE NUMBER (mg KOH/g) ASTM D4730</b>		
TBN Total Base Number	11.3	12.0

**WEAR LEVELS / ADDITIVES**

	17-Aug-23	20-Sep-16
<b>ELEMENTAL ANALYSIS (PPM) ASTM D2201 (OIL) / ASTM D630 (COOLANT)</b>		
Cu Copper	6	1
Fe Iron	2	2
Cr Chromium	0	0
Al Aluminum	0	1
Pb Lead	0	0
Sn Tin	0	0
Si Silicon	5	18
Na Sodium	1	0
K Potassium	5	2
Mo Molybdenum	43	48
Ni Nickel	0	0
Ag Silver	0	0
Ti Titanium	0	0
V Vanadium	0	0
Mn Manganese	0	0
Cd Cadmium	0	0
Ca Calcium	1119	2703
P Phosphorus	672	1279
Zn Zinc	832	1444
Mg Magnesium	765	534
Ba Barium	0	0
B Boron	43	65

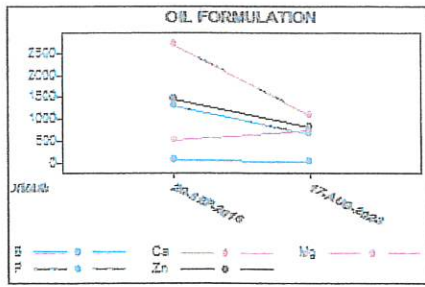
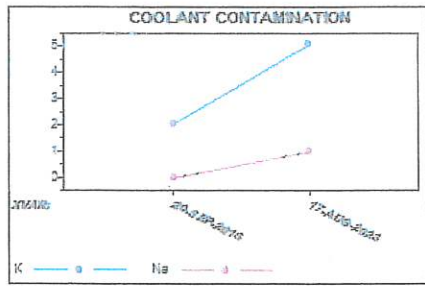
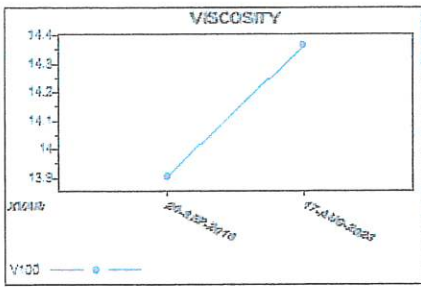
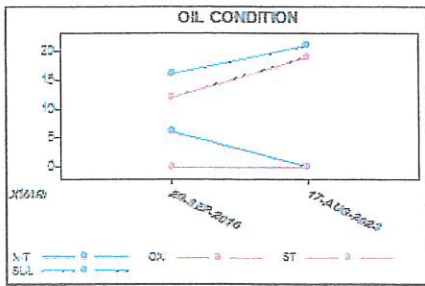
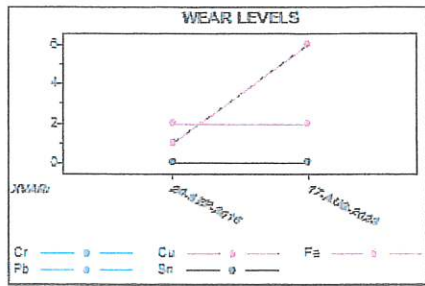
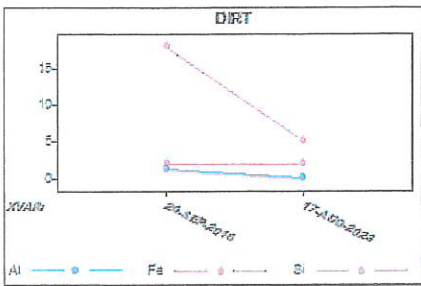
	17-Aug-23	20-Sep-16
<b>INFRARED (UFM) ASTM E2412</b>		
ST Soot	0	0
OXI Oxidation	19	12
SUL Sulfur Products	21	16
NIT Nitration	0	6

	17-Aug-23	20-Sep-16
<b>WATER</b>		
W Water	N	N

	17-Aug-23	20-Sep-16
<b>ANTIFREEZE</b>		
A Antifreeze		N

	17-Aug-23	20-Sep-16
<b>FUEL</b>		
F Fuel	N	N

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or component thereof.



Report Comment

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJIVrs>

LORY  
 CITY OF RIVERSIDE  
 PO BOX 188  
 RIVERSIDE, IA 52327

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or component thereof.



**RADIATOR**

EQUIP NUM: 02-11712  
 CAT D40P3\_CAT  
 Monitor Compartment



%GLYCOL IS HIGH. RECOMMEND DRAINING 1/3 OF SYSTEM CAPACITY AND REFILL WITH QUALITY WATER. THEN ADD 1% OF ADDITIVE. RESAMPLE IN 3 MONTHS TO MONITOR.

Interp By: Dipall Rote  
 Interpreted On: 23-Aug-23

B030-53230-2013  
 LABEL#: LEVEL2PREPAID  
 SHOP JOB NUM : CE48886-01-  
 SL2  
 SAMPLE SHIP TIME (days) : 2  
**CITY OF RIVERSIDE**  
 CE WORK ORDER PREFIX  
 CONTACTS. CEDAR RAPIDS  
 POWER SYSTEMS -  
 RECEIVED DATE: 21-Aug-23

*LS#2*

**SAMPLE INFORMATION**

Sampled Date 16-Aug-23  
 Sample Id B030-53230-2013  
 Lab Date 18-Aug-23  
 Meter [Hr] 522  
 Meter On Fluid 522  
 Fluid Brand UNKNOWN  
 Fluid Weight  
 Fluid Type  
 Fluid Change N  
 Filter Change  
 Total Fluid Added 0

For additional sample history, go to: [my.cat.com](http://my.cat.com)

**ADDITIONAL CHARACTERISTICS**

16-Aug-23  
**REFRACTIVE INDEX**  
 GL Glycol (%) 74  
 FP Freeze Point (°C) -58  
 BP Boil Point (°C) 118  
**CONDUCTIVITY (µS/cm)**  
 CON Conductivity NA

**ADDITIONAL ANALYTES (PPM)**

MoO4 Molybdate 200  
 BO3 Borate 3535  
 SiO3 Silicate 247  
 PO4 Phosphate 592  
 TH Total Hardness 1

**ORGANIC ANALYSIS (PPM) ASTM D5827**

SAC Sebacate <600  
 TT Tolytriazole 807  
 EHA 2-Ethylhexanoic A <6000  
 BT 1H-Benzotriazole <100  
 Benzo Benzoic Acid <300  
 To\_La P-Toluic Acid <150  
 MBT 2-Mercaptobenzoth <200

**CORROSION LEVELS/ CHEMISTRY**

16-Aug-23

**ELEMENTAL ANALYSIS (PPM) ASTM D6185 [OIL] / ASTM D8130 [COOLANT]**

Na	Sodium	3828
K	Potassium	1232
Mo	Molybdenum	120
Cu	Copper	1
Fe	Iron	0
Pb	Lead	17
Sn	Tin	0
Al	Aluminum	0
Zn	Zinc	1

**ANION ANALYSIS (PPM) ASTM D4327**

NO2	Nitrite	1570
NO3	Nitrate	1754
GLO	Glycolate	1689
CL	Chloride	<20
SO4	Sulfate	155

**pH ASTM D1287**

pH pH 8.5

**PHYSICAL CHARACTERISTICS**

16-Aug-23

**PHYSICAL**

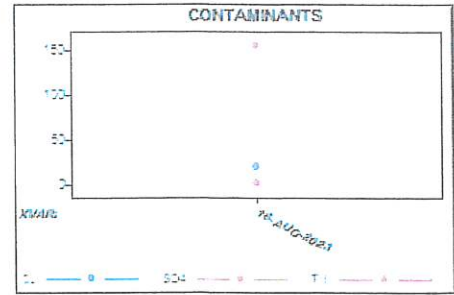
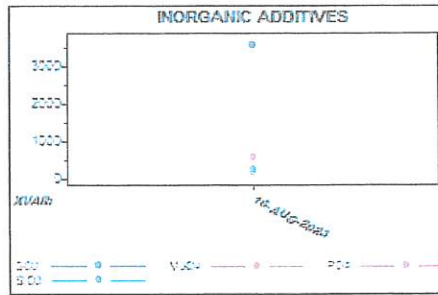
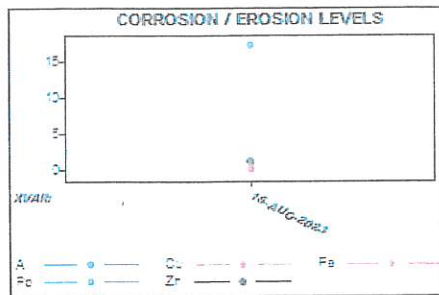
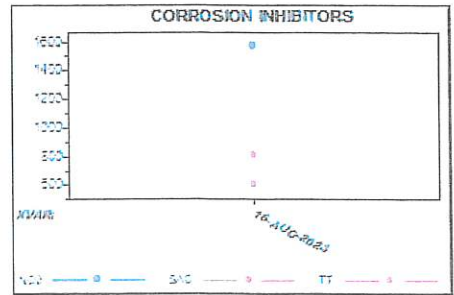
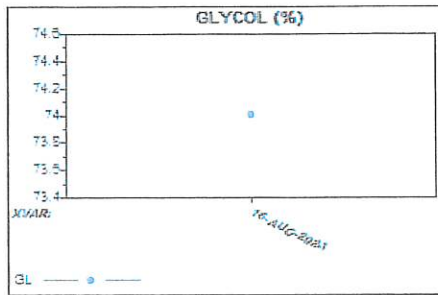
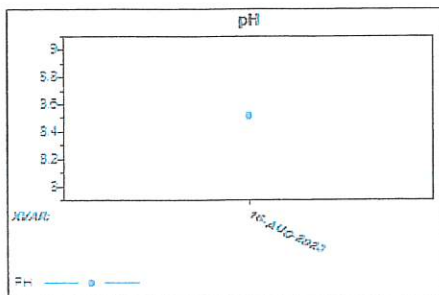
Color	Color	red
App	Appearance	clear
Odor	Odor	norm
Oil	Oil	none
Foam	Foam	norm
PAm	Precip Amount	none

RADIATOR  
 SERIAL NUMBER: NPF01766  
 EQUIP NUM: 02-11712  
 CAT D40P3\_CAT

B030-53230-2013



Monitor Compartment



Report Comment

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>

LORY  
 CITY OF RIVERSIDE  
 PO BOX 188  
 RIVERSIDE, IA 52327

**ENGINE**

B030-53230-0080  
 LABEL#: OPTION2PREPAID  
 SHOP JOB NUM : CE48886-01-  
 SL2  
 SAMPLE SHIP TIME (days) : 2  
**CITY OF RIVERSIDE**  
 CE WORK ORDER PREFIX  
 CONTACTS, CEDAR RAPIDS  
 POWER SYSTEMS -  
 RECEIVED DATE: 18-Aug-23

EQUIP NUM: 02-11712

CAT D40P3\_CAT

SERIAL NUMBER: NPF01766

**No Action Required**

Interp By: Sarah Banowetz

Interpreted On: 23-Aug-23

FIRST SAMPLE/NO TREND ESTABLISHED. NEED HOURS / MILES OF USAGE FOR GOOD DATA EVALUATION. WEAR PATTERN APPEARS TO BE NORMAL ON A FIRST SAMPLE BASIS. RESAMPLE AT NORMAL INTERVAL TO ESTABLISH A TREND. CONTINUE TO MONITOR COMPARTMENT BY SAMPLING AT RECOMMENDED INTERVALS.

*LS #2*

**SAMPLE INFORMATION**

For additional sample history, go to:

[my.cat.com](http://my.cat.com)

Sampled Date 16-Aug-23  
 Sample Id B030-53230-0080  
 Lab Date 18-Aug-23  
 Meter [Hr] 522  
 Meter On Fluid  
 Fluid Brand CAT  
 Fluid Weight 10W-30  
 Fluid Type  
 Fluid Change Y  
 Filter Change Y  
 Total Fluid Added 0

**CONDITION / CONTAMINATION**

16-Aug-23

**VISCOSITY (CENTISTOKES) ASTM D445**

V100 Viscosity at 100 C 13.51

**INFRARED (LFM) ASTM E2412**

ST Soot 0  
 OXI Oxidation 19  
 SUL Sulfur Products 23  
 NIT Nitration 0

**WATER**

W Water N

**WEAR LEVELS / ADDITIVES**

16-Aug-23

**ELEMENTAL ANALYSIS (PPM) ASTM D6185 (OIL) / ASTM D6180 (COOLANT)**

Cu	Copper	1
Fe	Iron	3
Cr	Chromium	0
Al	Aluminum	0
Pb	Lead	0
Sn	Tin	0
Si	Silicon	4
Na	Sodium	1
K	Potassium	4
Mo	Molybdenum	41
Ni	Nickel	0
Ag	Silver	0
Ti	Titanium	0
V	Vanadium	0
Mn	Manganese	0
Cd	Cadmium	0
Ca	Calcium	1100
P	Phosphorus	637
Zn	Zinc	802
Mg	Magnesium	743
Ba	Barium	0
B	Boron	41

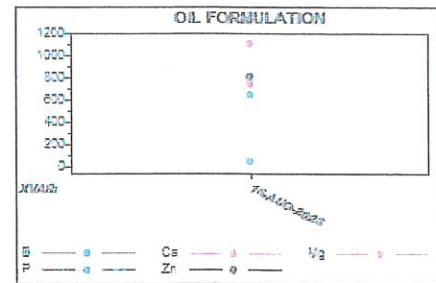
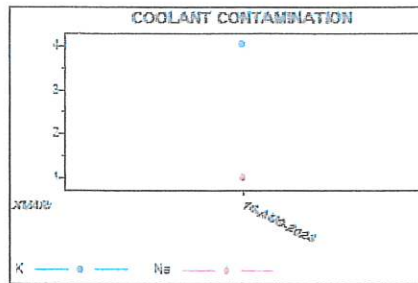
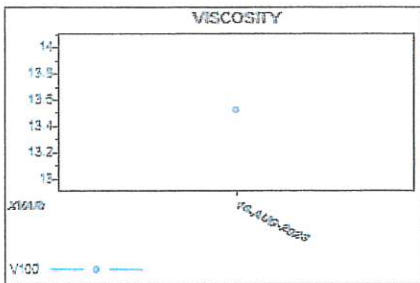
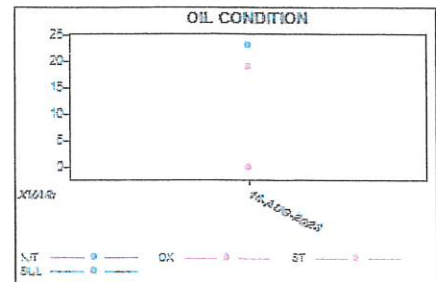
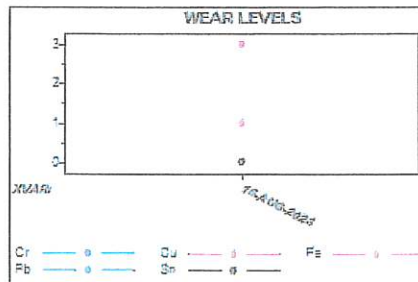
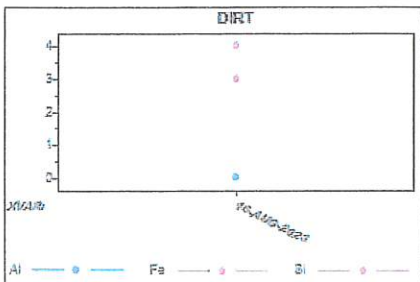
**FUEL**

F Fuel N



ENGINE  
 SERIAL NUMBER: NPF01766  
 EQUIP NUM: 02-11712  
 CAT D40P3\_CAT

B030-53230-0080  
  
 No Action Required



Report Comment

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUr>

LORY  
 CITY OF RIVERSIDE  
 PO BOX 188  
 RIVERSIDE, IA 52327

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or component thereof.

**RADIATOR**

EQUIP NUM: 03-11044  
 CAT D50P3  
**No Action Required**

Interp By: Dipali Rote  
 Interpreted On: 23-Aug-23

B030-53230-2018  
 LABEL#: LEVEL2PPREPAID  
 SHOP JOB NUM : CE48887-01-  
 SL2  
 SAMPLE SHIP TIME (days) : 1  
**CITY OF RIVERSIDE**  
 CE WORK ORDER PREFIX  
 CONTACTS. CEDAR RAPIDS  
 POWER SYSTEMS -  
 RECEIVED DATE: 21-Aug-23

ALL ANALYSIS READINGS ARE WITHIN THE EXPECTED RANGE FOR THIS COOLANT SAMPLE. CONTINUE TO SAMPLE AT THE RECOMMENDED INTERVAL.

*LS#3*

**SAMPLE INFORMATION**

For additional sample history, go to: [my.cat.com](http://my.cat.com)

Sampled Date 17-Aug-23  
 Sample Id B030-53230-2018  
 Lab Date 18-Aug-23  
 Meter [Hr] 772  
 Meter On Fluid 772  
 Fluid Brand UNKNOWN  
 Fluid Weight  
 Fluid Type  
 Fluid Change N  
 Filter Change  
 Total Fluid Added 0

**ADDITIONAL CHARACTERISTICS**

17-Aug-23

**REFRACTIVE INDEX**

GL Glycol (%) 69  
 FP Freeze Point (°C) -69  
 BP Boil Point (°C) 114

**CONDUCTIVITY (µS/cm)**

CON Conductivity 3230

**ADDITIONAL ANALYTES (PPM)**

MoO4 Molybdate 210  
 BO3 Borate 3215  
 SiO3 Silicate 256  
 PO4 Phosphate 319  
 TH Total Hardness 1

**ORGANIC ANALYSIS (PPM) ASTM D5927**

SAC Sebacate <600  
 TT Tolytriazole 667  
 EHA 2-Ethylhexanoic A <6000  
 BT 1H-Benzotriazole <100  
 Benzo Benzoic Acid <300  
 Tol\_a P-Toluic Acid <150  
 MBT 2-Mercaptobenzoth <200

**CORROSION LEVELS/ CHEMISTRY**

17-Aug-23

**ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]**

Na Sodium 3707  
 K Potassium 875  
 Mo Molybdenum 126  
 Cu Copper 1  
 Fe Iron 1  
 Pb Lead 1  
 Sn Tin 1  
 Al Aluminum 0  
 Zn Zinc 0

**ANION ANALYSIS (PPM) ASTM D4327**

NO2 Nitrite 1075  
 NO3 Nitrate 1742  
 GLO Glycolate 1790  
 CL Chloride <20  
 SO4 Sulfate 156

**pH ASTM D1287**

pH pH 8.3

**PHYSICAL CHARACTERISTICS**

17-Aug-23

**PHYSICAL**

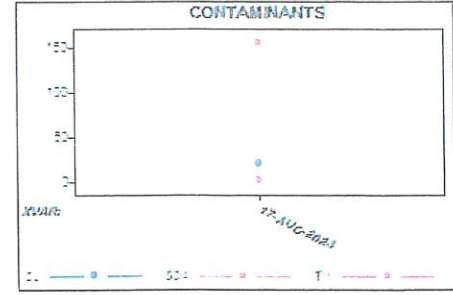
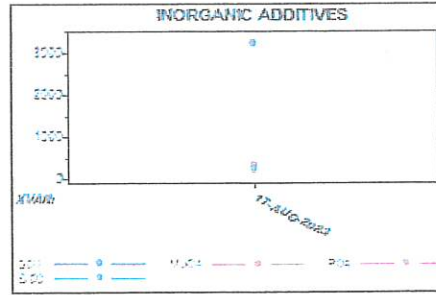
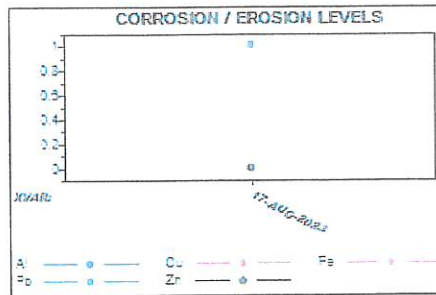
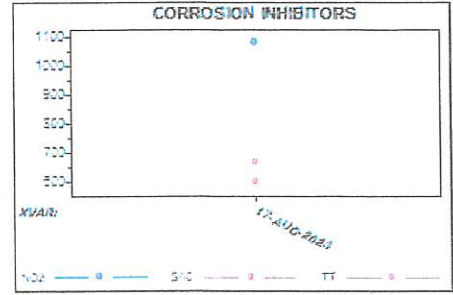
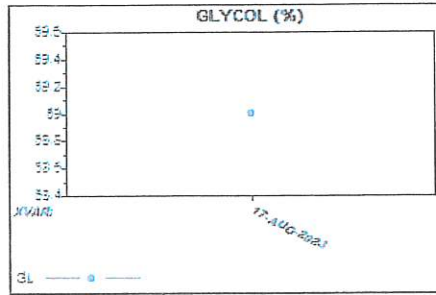
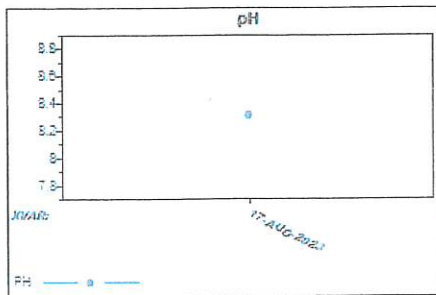
Color Color red  
 App Appearance clear  
 Odor Odor norm  
 Oil Oil none  
 Foam Foam norm  
 PAm Precip Amount none

RADIATOR  
 SERIAL NUMBER: NPF02488  
 EQUIP NUM: 03-11044  
 CAT D50P3

B030-53230-2018



No Action Required



Report Comment

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>


LORY  
 CITY OF RIVERSIDE  
 PO BOX 188  
 RIVERSIDE, IA 52327



**ENGINE**

B030-53230-0082  
 LABEL#: OPTION2PREPAID  
 SHOP JOB NUM : CE48887-01-SL2  
 SAMPLE SHIP TIME (days) : 1  
**CITY OF RIVERSIDE**  
 CE WORK ORDER PREFIX  
 CONTACTS. CEDAR RAPIDS  
 POWER SYSTEMS -  
 RECEIVED DATE: 18-Aug-23

*LS #3*

EQUIP NUM: 03-11044  
 CAT D50P3  
 **No Action Required**

SERIAL NUMBER: NPF02488

Interp By: Sarah Banowetz  
 Interpreted On: 23-Aug-23

FIRST SAMPLE/NO TREND ESTABLISHED. NEED HOURS / MILES OF USAGE FOR GOOD DATA EVALUATION. WEAR PATTERN APPEARS TO BE NORMAL ON A FIRST SAMPLE BASIS. RESAMPLE AT NORMAL INTERVAL TO ESTABLISH A TREND. CONTINUE TO MONITOR COMPARTMENT BY SAMPLING AT RECOMMENDED INTERVALS.

**SAMPLE INFORMATION**

Sampled Date 17-Aug-23  
 Sample Id B030-53230-0082  
 Lab Date 18-Aug-23  
 Meter [Hr] 772  
 Meter On Fluid  
 Fluid Brand CAT  
 Fluid Weight 10W-30  
 Fluid Type  
 Fluid Change Y  
 Filter Change Y  
 Total Fluid Added 0

For additional sample history, go to:

[my.cat.com](http://my.cat.com)

**CONDITION / CONTAMINATION**

17-Aug-23

**VELOCITY (CENTISTOKES) ASTM D445**

V100 Viscosity at 100 C 13.97

**INFUSED (UM) ASTM E2042**

ST Soot 0  
 OXI Oxidation 20  
 SUL Sulfur Products 23  
 NIT Nitration 0

**WATER**

W Water N

**WEAR LEVELS / ADDITIVES**

17-Aug-23

**ELEMENTAL ANALYSIS (PPM) ASTM D5185 (OIL) / ASTM D6210 (COOLANT)**

Cu	Copper	1
Fe	Iron	3
Cr	Chromium	0
Al	Aluminum	1
Pb	Lead	0
Sn	Tin	0
Si	Silicon	2
Na	Sodium	0
K	Potassium	4
Mo	Molybdenum	43
Ni	Nickel	0
Ag	Silver	0
Ti	Titanium	0
V	Vanadium	0
Mn	Manganese	0
Cd	Cadmium	0
Ca	Calcium	1081
P	Phosphorus	662
Zn	Zinc	829
Mg	Magnesium	719
Ba	Barium	0
B	Boron	42

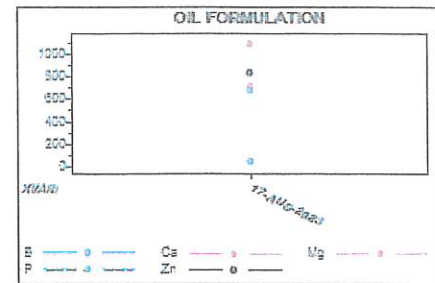
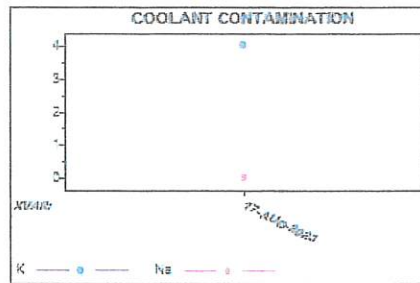
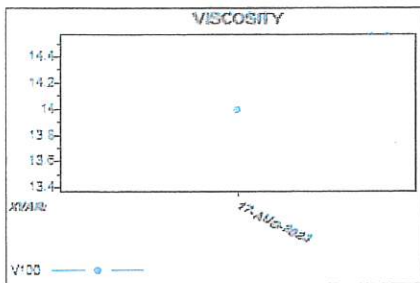
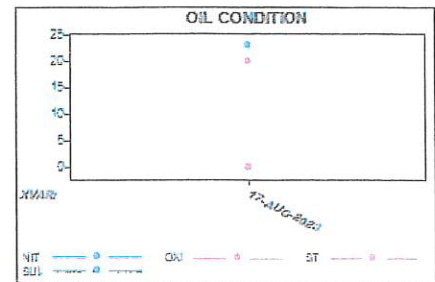
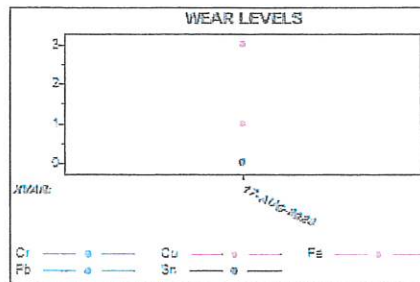
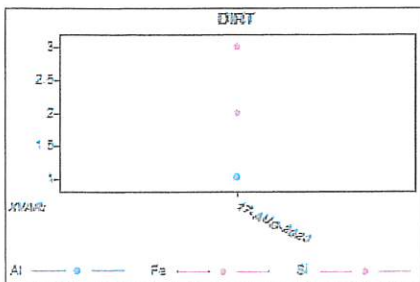
**FUEL**

F Fuel N

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or component thereof.

ENGINE  
 SERIAL NUMBER: NPF02488  
 EQUIP NUM: 03-11044  
 CAT D50P3

B030-53230-0082  
  
 No Action Required



Report Comment

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>

LORY  
 CITY OF RIVERSIDE  
 PO BOX 188  
 RIVERSIDE, IA 52327

**RADIATOR**

EQUIP NUM: WELL #4

SERIAL NUMBER: GBE00945

CAT C2.2

COMP SERIAL NUM: N1200747

No Action Required

Interp By: Dipali Rote

Interpreted On: 23-Aug-23

ALL ANALYSIS READINGS ARE WITHIN THE EXPECTED RANGE FOR THIS COOLANT SAMPLE. CONTINUE TO SAMPLE AT THE RECOMMENDED INTERVAL.

B030-53230-2015

LABEL#: LEVEL2PREPAID

SHOP JOB NUM : CE48884-01-

SL2

SAMPLE SHIP TIME (days) : 2

CITY OF RIVERSIDE

CE WORK ORDER PREFIX

CONTACTS. CEDAR RAPIDS

POWER SYSTEMS -

RECEIVED DATE: 21-Aug-23

LS #4

**SAMPLE INFORMATION**

	16-Aug-23	07-Oct-16
Sampled Date	16-Aug-23	07-Oct-16
Sample Id	B030-53230-2015	B030-46284-2002
Lab Date	18-Aug-23	10-Oct-16
Meter [Hr]	168	104
Meter On Fluid	168	104
Fluid Brand	CATELC	CATELC
Fluid Weight		
Fluid Type		
Fluid Change	N	N
Filter Change	0	

**PREVIOUS SAMPLE**

ALL ANALYSIS READINGS ARE WITHIN THE EXPECTED RANGE FOR THIS COOLANT SAMPLE. CONTINUE TO SAMPLE AT THE RECOMMENDED INTERVAL.

For additional sample history, go to: [my.cat.com](http://my.cat.com)

**ADDITIONAL CHARACTERISTICS**

	16-Aug-23	07-Oct-16
<b>REFRACTIVE INDEX</b>		
GL Glycol (%)	64	60
FP Freeze Point (°C)	-62	-53
BP Boil Point (°C)	112	109
<b>CONDUCTIVITY (µS/cm)</b>		
CON Conductivity	5901	5342

**CORROSION LEVELS/ CHEMISTRY**

	16-Aug-23	07-Oct-16
<b>ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]</b>		
Na Sodium	4000	3781
K Potassium	4060	1589
Mo Molybdenum	643	161
Cu Copper	2	0
Fe Iron	0	0
Pb Lead	0	0
Sn Tin	0	0
Al Aluminum	0	0
Zn Zinc	0	0

**ADDITIONAL ANALYTES (PPM)**

	16-Aug-23	07-Oct-16
MoO4 Molybdate	1072	269
BO3 Borate	1213	1017
SiO3 Silicate	255	357
PO4 Phosphate	4467	23
TH Total Hardness	0	8

**ORGANIC ANALYSIS (PPM) ASTM D5827**

	16-Aug-23	07-Oct-16
SAC Sebacate	<600	587
TT Tolytriazole	985	1786
EHA 2-Ethylhexanoic A	<6000	1895
BT 1H-Benzotriazole	215	0
Benzo Benzoic Acid	6334	10702
ToLa P-Toluic Acid	155	2268
MBT 2-Mercaptobenzoth	<200	38

**ANION ANALYSIS (PPM) ASTM D4327**

	16-Aug-23	07-Oct-16
NO2 Nitrite	1120	1567
NO3 Nitrate	1137	502
GLO Glycolate	1012	335
CL Chloride	<20	12
SO4 Sulfate	66	58

**PHYSICAL CHARACTERISTICS**

	16-Aug-23	07-Oct-16
<b>PHYSICAL</b>		
Color Color	blue/dark	red/orange
App Appearance	clear	clear
Odor Odor	norm	norm
Oil Oil	none	none
Foam Foam	norm	norm
PAmt Precip Amount	none	trace

**pH ASTM D1287**

	16-Aug-23	07-Oct-16
pH pH	8.7	9.1



RADIATOR  
 SERIAL NUMBER: GBE00945  
 EQUIP NUM: WELL #4  
 CAT C2.2  
 COMP SERIAL NUM: N1Z00747

B030-53230-2015

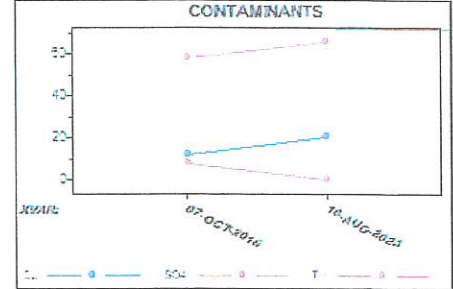
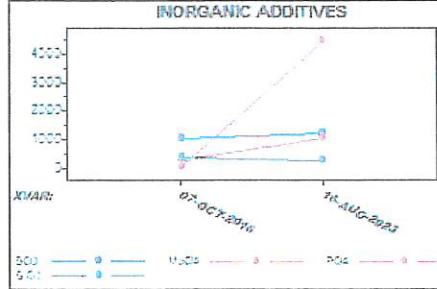
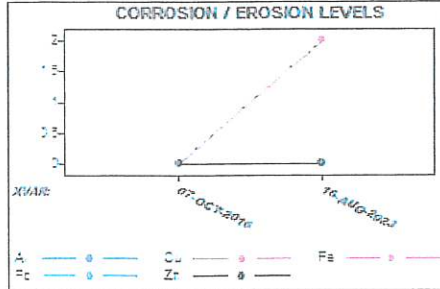
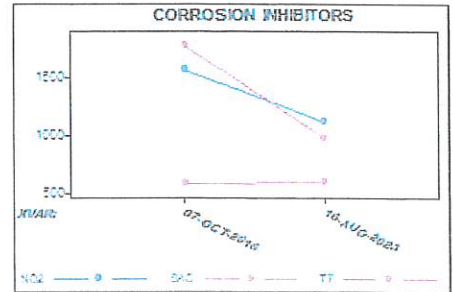
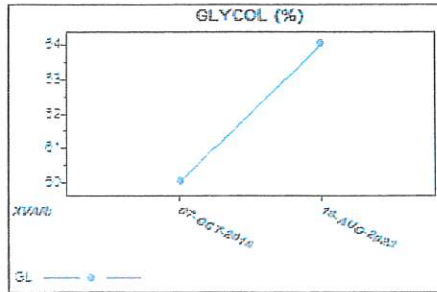
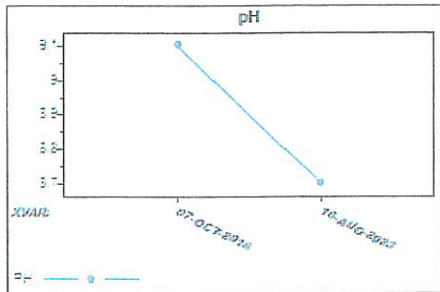
No Action Required

**SAMPLE INFORMATION**

Sampled Date	16-Aug-23	07-Oct-16
Sample Id	B030-53230-2015	B030-46284-2002
Lab Date	18-Aug-23	10-Oct-16
Meter [Hr]	168	104
Meter On Fluid	168	104
Fluid Brand	CATELC	CATELC
Fluid Weight		
Fluid Type		
Fluid Change	N	N
Filter Change	0	

PApp Precip Appearance  
 PCol Precip Color  
 PProp Precip Property

fine  
 blk sol  
 mag




**Report Comment**

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>

LORY  
 CITY OF RIVERSIDE  
 PO BOX 188  
 RIVERSIDE, IA 52327

**ENGINE GENSET**

B030-53230-0084  
 SHOP JOB NUM : CE48884-01-SL2  
 SAMPLE SHIP TIME (days) : 2  
**CITY OF RIVERSIDE**  
 CE WORK ORDER PREFIX  
 CONTACTS. CEDAR RAPIDS  
 POWER SYSTEMS -  
 RECEIVED DATE: 18-Aug-23

EQUIP NUM: WELL #4  
 CAT C2.2  
 **No Action Required**

SERIAL NUMBER: GBE00945  
 COMP SERIAL NUM: E6X00648

Interp By: Sarah Banowetz  
 Interpreted On: 23-Aug-23

NOTE LENGTH OF TIME SINCE LAST SAMPLE TAKEN. INTERMITTENT USAGE CAN CAUSE HIGH READINGS. RESULTS OF THE LATEST SAMPLE INDICATE NORMAL WEAR AND TRENDS FOR THIS COMPARTMENT. NO EXCESSIVE WEAR IS INDICATED AT THIS TIME. CONTINUE TO MONITOR COMPARTMENT BY SAMPLING AT RECOMMENDED INTERVALS. SUGGEST RESAMPLE IN 6 MONTHS OR AT HALF THE NORMAL INTERVAL, WHICHEVER COMES FIRST, TO MONITOR TREND.

*LS #4*

**SAMPLE INFORMATION**

	16-Aug-23	07-Oct-16
Sampled Date	16-Aug-23	07-Oct-16
Sample Id	B030-53230-0084	B030-46284-0177
Lab Date	18-Aug-23	10-Oct-16
Meter [Hr]	168	104
Meter On Fluid	64	8
Fluid Brand	CAT	CAT
Fluid Weight	15W-40	15W-40
Fluid Type		
Fluid Change	Y	Y
Filter Change	Y	Y
Kidney Loop		U
	0	

**PREVIOUS SAMPLE**

WEAR METAL ANALYSIS RESULTS ARE NORMAL. INFRARED ANALYSIS RESULTS ARE ACCEPTABLE. WATER/FUEL/GLYCOL PHYSICAL TESTS ARE ACCEPTABLE. NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NEXT NORMAL SERVICE INTERVAL.

For additional sample history, go to: [my.cat.com](http://my.cat.com)

**CONDITION / CONTAMINATION**

	16-Aug-23	07-Oct-16
<b>VISCOSITY (CENTISTOKES) ASTM D445</b>		
V100 Viscosity at 100 C	14.50	14.4

	16-Aug-23	07-Oct-16
<b>TOTAL BASE NUMBER (mg KOH/g) ASTM D473</b>		
TBN Total Base Number	11.1	12.4

**WEAR LEVELS / ADDITIVES**

	16-Aug-23	07-Oct-16
<b>ELEMENTAL ANALYSIS (PPM) ASTM D689 [OIL] ASTM D680 [COOLANT]</b>		
Cu Copper	15	2
Fe Iron	1	3
Cr Chromium	0	0
Al Aluminum	0	2
Pb Lead	0	1
Sn Tin	0	0
Si Silicon	2	6
Na Sodium	0	0
K Potassium	5	2
Mo Molybdenum	40	42
Ni Nickel	0	0
Ag Silver	0	0
Ti Titanium	3	0
V Vanadium	0	0
Mn Manganese	0	0
Cd Cadmium	0	0
Ca Calcium	1132	2862
P Phosphorus	677	1330
Zn Zinc	834	1506
Mg Magnesium	670	546
Ba Barium	0	0
B Boron	45	78

	16-Aug-23	07-Oct-16
<b>INFRARED (UFM) ASTM E2412</b>		
ST Soot	0	0
OXI Oxidation	19	13
SUL Sulfur Products	22	18
NIT Nitration	0	6

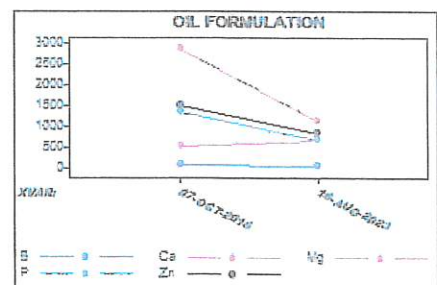
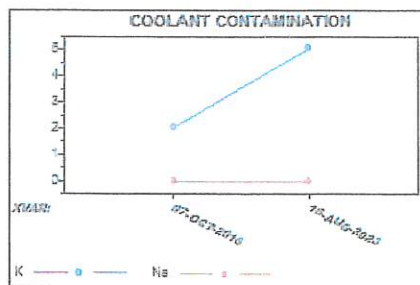
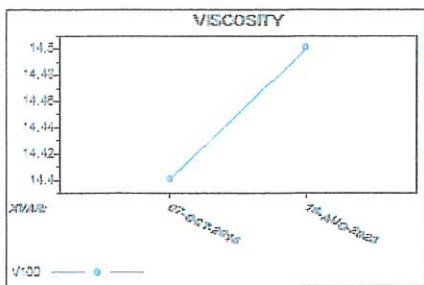
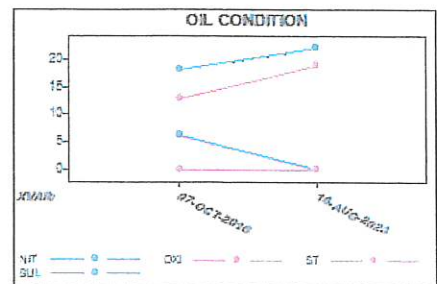
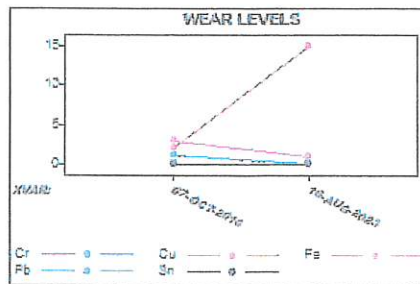
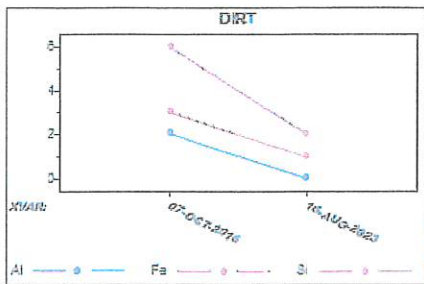
	16-Aug-23	07-Oct-16
<b>WATER</b>		
W Water	N	N

	16-Aug-23	07-Oct-16
<b>ANTIFREEZE</b>		
A Antifreeze		N

	16-Aug-23	07-Oct-16
<b>FUEL</b>		
F Fuel	N	N

ENGINE GENSET  
 SERIAL NUMBER: G8E00945  
 EQUIP NUM: WELL #4  
 CAT C2.2  
 COMP SERIAL NUM: E6X00648

B030-53230-0084  
  
 No Action Required



Report Comment

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>

LORY  
 CITY OF RIVERSIDE  
 PO BOX 188  
 RIVERSIDE, IA 52327

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or component thereof



**RADIATOR**

B030-53230-2016

LABEL#: LEVEL2PREPAID

SHOP JOB NUM : CE48888-01-

SL2

SAMPLE SHIP TIME (days) : 1

CITY OF RIVERSIDE

CE WORK ORDER PREFIX

CONTACTS. CEDAR RAPIDS

POWER SYSTEMS -

RECEIVED DATE: 21-Aug-23

LS#5

EQUIP NUM: 05-11148

CAT D125P



**Monitor Compartment**

MAGNETIC SOLIDS MAY INDICATE LOCALIZED HOT SPOTS IN THE COOLING SYSTEM. NITRITE (SCA INHIBITOR) LEVEL IS TOO LOW TO PROVIDE CORROSION/EROSION PROTECTION. ADD 3% CAPACITY OF CATERPILLAR SCA(P/N 3P2044) TO BOOST NITRITE. SAMPLE IN HALF THE NORMAL INTERVAL TO MONITOR.

Interp By: Dipali Rote

Interpreted On: 23-Aug-23

**SAMPLE INFORMATION**



Sampled Date	17-Aug-23
Sample Id	B030-53230-2016
Lab Date	18-Aug-23
Meter [Hr]	329
Meter On Fluid	329
Fluid Brand	UNKNOWN
Fluid Weight	
Fluid Type	
Fluid Change	N
Filter Change	
Total Fluid Added	0

For additional sample history, go to:

[my.cat.com](http://my.cat.com)

**ADDITIONAL CHARACTERISTICS**

17-Aug-23

**REFRACTIVE INDEX**

GL	Glycol (%)	66
FP	Freeze Point (°C)	-67
BP	Boil Point (°C)	113

**CONDUCTIVITY (µS/cm)**

CON	Conductivity	3672
-----	--------------	------

**ADDITIONAL ANALYTES (PPM)**

MoO4	Molybdate	17
BO3	Borate	2107
SiO3	Silicate	271
PO4	Phosphate	36
TH	Total Hardness	70

**ORGANIC ANALYSIS (PPM) ASTM D5327**

SAC	Sebacate	3140
TT	Tolytriazole	888
EHA	2-Ethylhexanoic A	6339
BT	1H-Benzotriazole	<100
Benzo	Benzoic Acid	1830
ToLa	P-Toluic Acid	<150
MBT	2-Mercaptobenzoth	<200

**CORROSION LEVELS/ CHEMISTRY**

17-Aug-23

**ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]**

Na	Sodium	4551
K	Potassium	351
Mo	Molybdenum	10
Cu	Copper	1
Fe	Iron	3
Pb	Lead	4
Sn	Tin	1
Al	Aluminum	0
Zn	Zinc	0

**ANION ANALYSIS (PPM) ASTM D4327**

NO2	Nitrite	462
NO3	Nitrate	998
GLO	Glycolate	1746
CL	Chloride	<20
SO4	Sulfate	137

**pH ASTM D1287**

pH	pH	8.9
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**PHYSICAL CHARACTERISTICS**

17-Aug-23

**PHYSICAL**

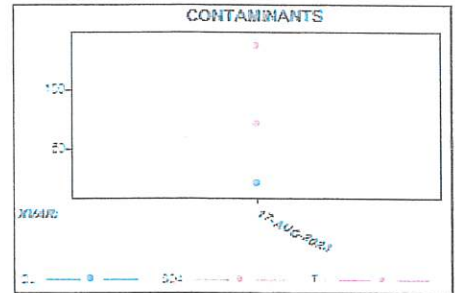
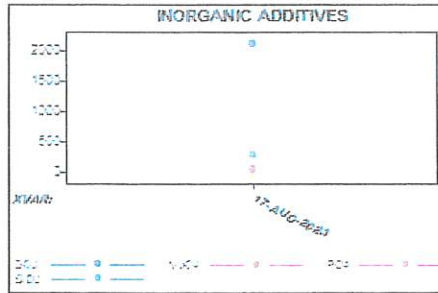
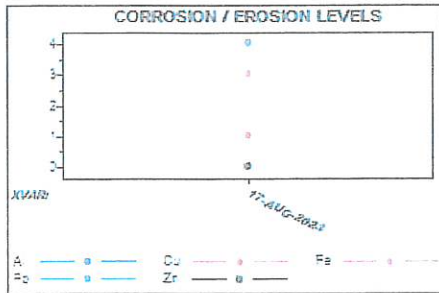
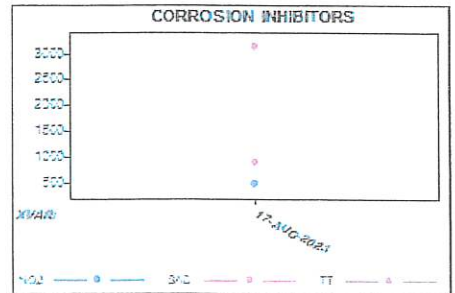
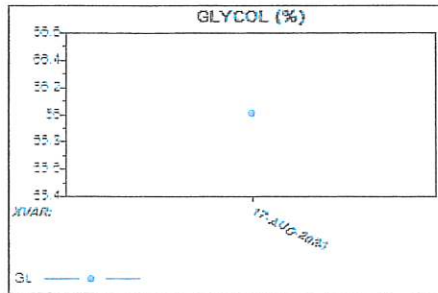
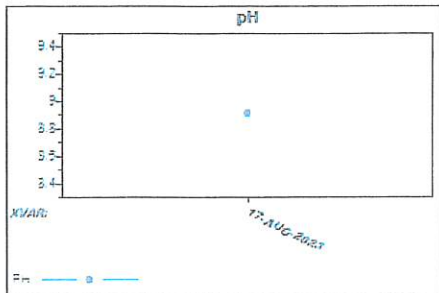
Color	Color	red
App	Appearance	clear
Odor	Odor	norm
Oil	Oil	none
Foam	Foam	norm
PAmt	Precip Amount	trace
PApp	Precip Appearance	fine
PCol	Precip Color	brn precip
PProp	Precip Property	mag

RADIATOR  
 SERIAL NUMBER: NPS02212  
 EQUIP NUM: 05-11148  
 CAT D125P

B030-53230-2016



Monitor Compartment



Report Comment

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>

LORY  
 CITY OF RIVERSIDE  
 PO BOX 188  
 RIVERSIDE, IA 52327

**ENGINE**

EQUIP NUM: 05-11148

CAT D125P

Action Required



Interp By: Sarah Banowetz

Interpreted On: 23-Aug-23

B030-53230-0083  
 LABEL#: OPTION2PREPAID  
 SHOP JOB NUM : CE48888-01-  
 SL2  
 SAMPLE SHIP TIME (days) : 1  
**CITY OF RIVERSIDE**  
 CE WORK ORDER PREFIX  
 CONTACTS. CEDAR RAPIDS  
 POWER SYSTEMS -  
 RECEIVED DATE: 18-Aug-23

FIRST SAMPLE/NO TREND ESTABLISHED. NEED HOURS / MILES OF USAGE FOR GOOD DATA EVALUATION. SODIUM IS HIGH. TYPICAL WEAR PATTERN FOR COOLANT LEAK. LOCATE POSSIBLE SOURCE OF COOLANT ENTRY. OIL WAS CHG'D AT THIS TIME. WAS THE FILTER CHECKED FOR VISIBLE METAL / DEBRIS AT THIS SERVICE? RESAMPLE IN 100 HRS. CONTINUE TO MONITOR COMPARTMENT BY SAMPLING AT RECOMMENDED INTERVALS.

*LSAS*

**SAMPLE INFORMATION**

For additional sample history, go to: [my.cat.com](http://my.cat.com)

Sampled Date	17-Aug-23
Sample Id	B030-53230-0083
Lab Date	18-Aug-23
Meter [Hr]	329
Meter On Fluid	
Fluid Brand	CAT
Fluid Weight	10W-30
Fluid Type	
Fluid Change	Y
Filter Change	Y
Total Fluid Added	0

**CONDITION / CONTAMINATION**

17-Aug-23

**VISCOSITY (CENTISTOKES) ASTM D445**

V100	Viscosity at 100 C	13.71
------	--------------------	-------

**INFRARED (UEM) ASTM E2412**

ST	Soot	0
OXI	Oxidation	19
SUL	Sulfur Products	21
NIT	Nitration	0

**WATER**

W	Water	N
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**WEAR LEVELS / ADDITIVES**

17-Aug-23

**ELEMENTAL ANALYSIS (PPM) ASTM D6186 (OIL) / ASTM D6130 (COOLANT)**

Cu	Copper	21
Fe	Iron	3
Cr	Chromium	0
Al	Aluminum	0
Pb	Lead	0
Sn	Tin	0
Si	Silicon	3
Na	Sodium	34
K	Potassium	4
Mo	Molybdenum	44
Ni	Nickel	0
Ag	Silver	0
Ti	Titanium	0
V	Vanadium	0
Mn	Manganese	0
Cd	Cadmium	0
Ca	Calcium	1089
P	Phosphorus	677
Zn	Zinc	839
Mg	Magnesium	706
Ba	Barium	0
B	Boron	44

**FUEL**

F	Fuel	N
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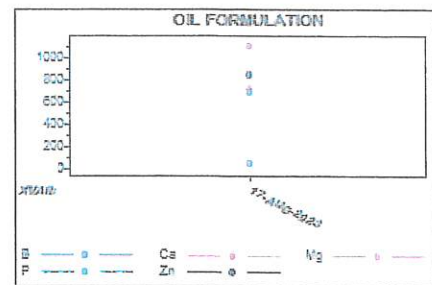
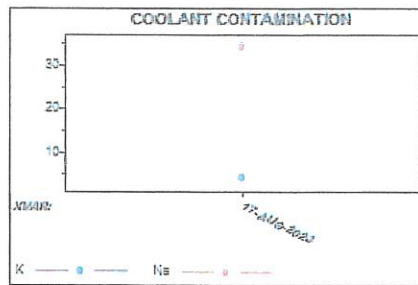
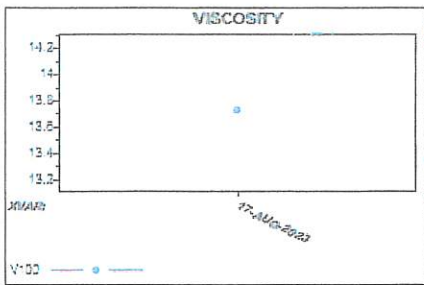
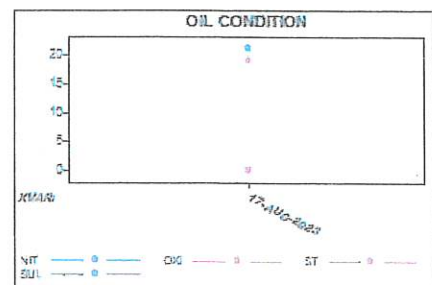
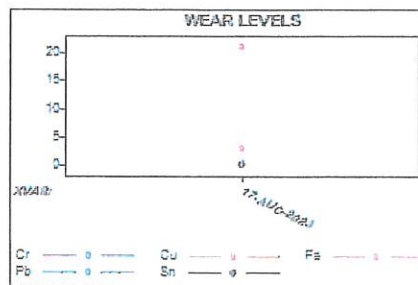
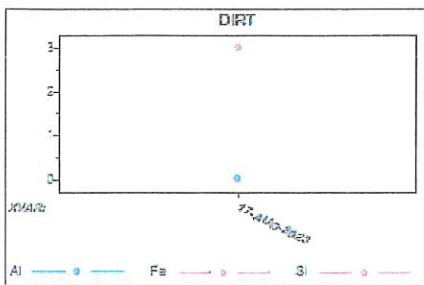


ENGINE  
 SERIAL NUMBER: NPS02212  
 EQUIP NUM: 05-11148  
 CAT D125P

B080-53230-0083



Action Required



Report Comment

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>

LORY  
 CITY OF RIVERSIDE  
 PO BOX 188  
 RIVERSIDE, IA 52327

**ENGINE GENSET**

EQUIP NUM: FIRE DEPT  
KATOLIGHT D150FP54\_KATOLIGHT  
Monitor Compartment

SERIAL NUMBER: 146139\_0507

Interp By: Sarah Banowitz

Interpreted On: 23-Aug-23

B030-53230-0078  
LABEL#: OPTION2PREPAID  
SHOP JOB NUM : CE48890-01-  
SL2  
SAMPLE SHIP TIME (days) : 2  
CITY OF RIVERSIDE  
CE WORK ORDER PREFIX  
CONTACTS. CEDAR RAPIDS  
POWER SYSTEMS -  
RECEIVED DATE: 18-Aug-23



NOTE LENGTH OF TIME SINCE LAST SAMPLE TAKEN. INTERMITTENT USAGE CAN CAUSE HIGH READINGS. SODIUM IS HIGH. TYPICAL WEAR PATTERN FOR COOLANT LEAK. MONITOR COOLANT CONSUMPTION CLOSELY. CK TO SEE IF SAMPLE WAS TAKEN HOT. BE SURE CORRECT WARM-UP PROCEDURE IS FOLLOWED. OIL WAS CHG'D AT THIS TIME. WAS THE FILTER CHECKED FOR VISIBLE METAL / DEBRIS AT THIS SERVICE? RESAMPLE AT HALF THE NORMAL INTERVAL. CONTINUE TO MONITOR COMPARTMENT BY SAMPLING AT RECOMMENDED INTERVALS.

*Fire Station*

**SAMPLE INFORMATION**

	16-Aug-23	20-Sep-16
Sampled Date	16-Aug-23	20-Sep-16
Sample Id	B030-53230-0078	B030-46265-0202
Lab Date	18-Aug-23	21-Sep-16
Meter [Hr]	417	218
Meter On Fluid	199	17
Fluid Brand	ALTORFER	ALTORFER
Fluid Weight	15W-40	15W-40
Fluid Type		
Fluid Change	Y	Y
Filter Change	Y	Y
Kidney Loop		U
	0	

**PREVIOUS SAMPLE**

WEAR METAL ANALYSIS RESULTS ARE NORMAL. INFRARED ANALYSIS RESULTS ARE ACCEPTABLE. WATER/FUEL/GLYCOL PHYSICAL TESTS ARE ACCEPTABLE. NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NEXT NORMAL SERVICE INTERVAL.

For additional sample history, go to:

[my.cat.com](http://my.cat.com)

**CONDITION / CONTAMINATION**

	16-Aug-23	20-Sep-16
<b>VISCOSITY (CENTISTOKES) ASTM D445</b>		
V100 Viscosity at 100 C	13.95	14.1

**TOTAL BASE NUMBER (mg KOH/g) ASTM D4730**

TBN	Total Base Number	16-Aug-23	20-Sep-16
		11.2	11.9

**WEAR LEVELS / ADDITIVES**

16-Aug-23 20-Sep-16

**ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]**

	16-Aug-23	20-Sep-16
Cu	Copper	5 0
Fe	Iron	4 2
Cr	Chromium	0 0
Al	Aluminum	0 1
Pb	Lead	0 0
Sn	Tin	0 0
Si	Silicon	9 9
Na	Sodium	31 1
K	Potassium	11 2
Mo	Molybdenum	44 41
Ni	Nickel	0 0
Ag	Silver	0 0
Ti	Titanium	0 0
V	Vanadium	0 0
Mn	Manganese	1 0
Cd	Cadmium	0 0
Ca	Calcium	1205 2400
P	Phosphorus	749 1222
Zn	Zinc	933 1373
Mg	Magnesium	708 585
Ba	Barium	0 0
B	Boron	41 56

**INFRARED (UFM) ASTM E2412**

	16-Aug-23	20-Sep-16
ST	Soot	0 0
OXI	Oxidation	19 14
SUL	Sulfur Products	23 18
NIT	Nitration	0 6

**WATER**

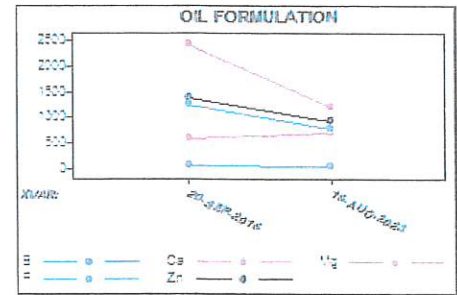
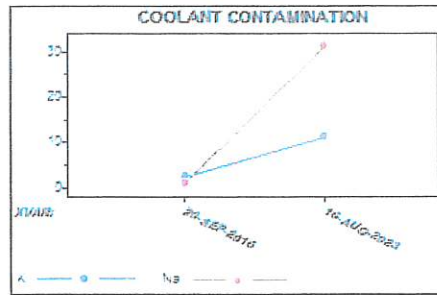
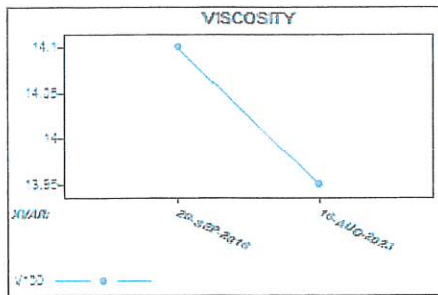
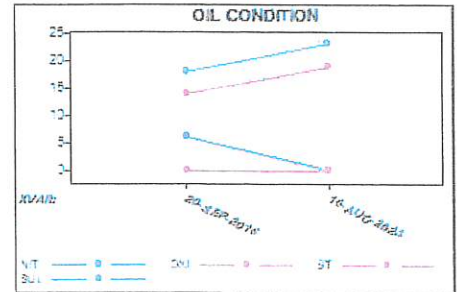
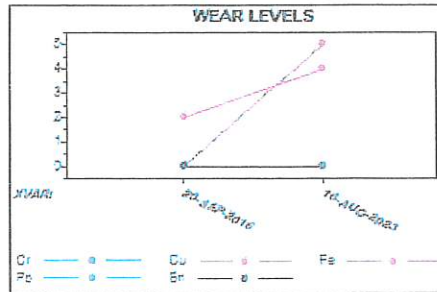
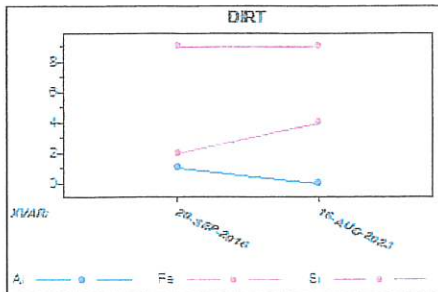
W	Water	16-Aug-23	20-Sep-16
		N	N

**ANTIFREEZE**

A	Antifreeze	16-Aug-23	20-Sep-16
			N

**FUEL**

F	Fuel	16-Aug-23	20-Sep-16
		N	N



Report Comment

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>

LORY  
 CITY OF RIVERSIDE  
 PO BOX 188  
 RIVERSIDE, IA 52327



**RADIATOR**

EQUIP NUM: FIRE DEPT  
KATOLIGHT D150FP54\_KATOLIGHT  
Monitor Compartment



%GLYCOL IS HIGH. RECOMMEND DRAINING 1/3 OF SYSTEM CAPACITY AND REFILL WITH QUALITY WATER. THEN ADD 1% OF ADDITIVE. RESAMPLE IN 3 MONTHS TO MONITOR.

Interp By: Dipali Rote  
Interpreted On: 23-Aug-23

B030-53230-2017  
LABEL#: LEVEL2PREPAID  
SHOP JOB NUM : CE48890-01-  
SL2  
SAMPLE SHIP TIME (days) : 2  
CITY OF RIVERSIDE  
CE WORK ORDER PREFIX  
CONTACTS. CEDAR RAPIDS  
POWER SYSTEMS -  
RECEIVED DATE: 21-Aug-23

*FS*

**SAMPLE INFORMATION**

	16-Aug-23	20-Sep-16
Sampled Date	16-Aug-23	20-Sep-16
Sample Id	B030-53230-2017	B030-46265-2006
Lab Date	18-Aug-23	21-Sep-16
Meter [Hr]	417	218
Meter On Fluid	199	218
Fluid Brand	CATNGEC	CATNGEC
Fluid Weight		
Fluid Type		
Fluid Change	N	Y
Filter Change	0	

**PREVIOUS SAMPLE**

COOLANT APPEARS TO BE ELC. NITRITES ARE VERY LOW. IF THIS IS A NITRITE FREE COOLANT ALL TESTS APPEAR NORMAL. OTHERWISE ADD 2% SYSTEM CAPACITY OF ADDITIVE TO BOOST NITRITE. RESAMPLE AT NEXT PM.

For additional sample history, go to: [my.cat.com](http://my.cat.com)

**ADDITIONAL CHARACTERISTICS**

	16-Aug-23	20-Sep-16
<b>REFRACTIVE INDEX</b>		
GL Glycol (%)	75	57
FP Freeze Point (°C)	-56	-48
BP Boil Point (°C)	118	109
<b>CONDUCTIVITY (µS/cm)</b>		
CON Conductivity	NA	6669

**CORROSION LEVELS/ CHEMISTRY**

	16-Aug-23	20-Sep-16
<b>ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]</b>		
Na Sodium	3512	3785
K Potassium	561	3556
Mo Molybdenum	0	3
Cu Copper	1	1
Fe Iron	0	0
Pb Lead	4	7
Sn Tin	1	1
Al Aluminum	1	1
Zn Zinc	0	0

**ADDITIONAL ANALYTES (PPM)**

	16-Aug-23	20-Sep-16
MoO4 Molybdate	0	6
BO3 Borate	2928	256
SiO3 Silicate	258	102
PO4 Phosphate	12	5
TH Total Hardness	4	3

**ORGANIC ANALYSIS (PPM) ASTM D5827**

	16-Aug-23	20-Sep-16
SAC Sebacate	<600	600
TT Tolytriazola	267	613
EHA 2-Ethylhexanoic A	<6000	285
BT 1H-Benzotriazole	<100	0
Benzo Benzoic Acid	2679	25
Tol_a P-Toluic Acid	618	119
MBT 2-Mercaptobenzoth	<200	138

**ANION ANALYSIS (PPM) ASTM D4327**

	16-Aug-23	20-Sep-16
NO2 Nitrite	1131	117
NO3 Nitrate	1148	380
GLO Glycolate	1377	119
CL Chloride	<20	12
SO4 Sulfate	224	26

**pH ASTM D1287**

	16-Aug-23	20-Sep-16
pH pH	8.3	10.4

**PHYSICAL CHARACTERISTICS**

	16-Aug-23	20-Sep-16
<b>PHYSICAL</b>		
Color Color	magenta	red
App Appearance	clear	cloudy
Odor Odor	norm	norm
Oil Oil	none	none
Foam Foam	norm	norm
PAm Precip Amount	none	trace

RADIATOR  
 SERIAL NUMBER: 146139\_0507  
 EQUIP NUM: FIRE DEPT  
 KATOLIGHT D150FP54\_KATOLIGHT

B030-53230-2017



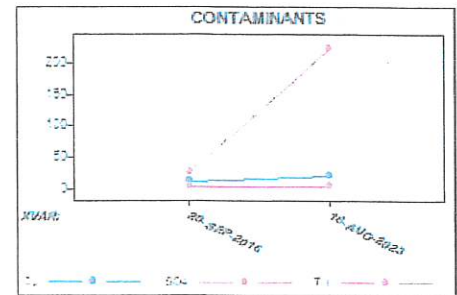
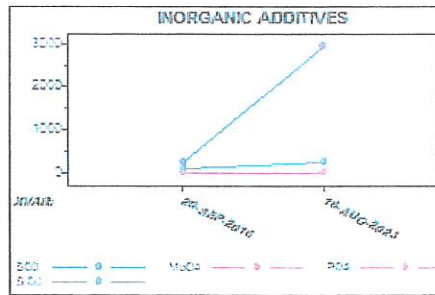
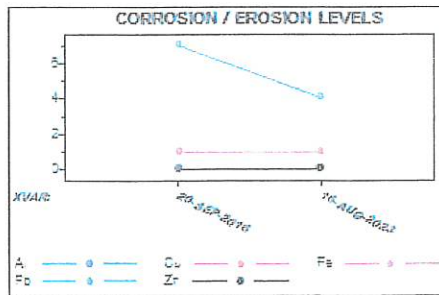
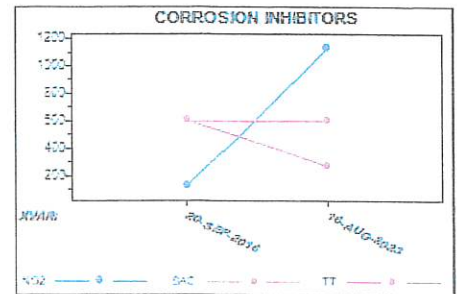
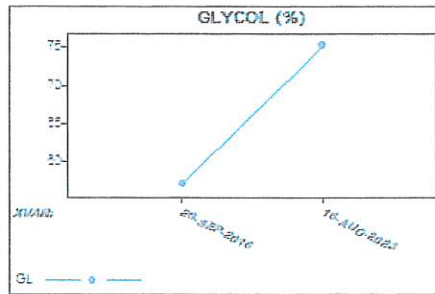
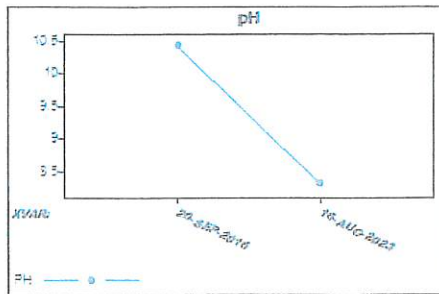
Monitor Compartment

**SAMPLE INFORMATION**

	16-Aug-23	20-Sep-16
Sample Id	B030-53230-2017	B030-46265-2006
Lab Date	18-Aug-23	21-Sep-16
Meter [Hr]	417	218
Meter On Fluid	199	218
Fluid Brand	CATNGEC	CATNGEC
Fluid Weight		
Fluid Type		
Fluid Change	N	Y
Filter Change	0	

PApp Precip Appearance  
 PCol Precip Color  
 PProp Precip Property

flake  
 blk sol  
 mag



**Report Comment**

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>

LORY  
 CITY OF RIVERSIDE  
 PO BOX 188  
 RIVERSIDE, IA 52327



# QUOTATION

4280 E 14th Street  
Des Moines IA 50313-2604 USA

Telephone: (515) 265-2222 / FAX (515) 265-8079  
Toll Free 1-800-383-PUMP

www.electricpump.com

QUOTE NUMBER: 0153021  
QUOTE DATE: 6/14/2023  
EXPIRE DATE: 7/14/2024

SALESPERSON: ZACH GRAY  
CUSTOMER NO: 6483501  
QUOTED BY: CAC  
FAIRBANKS U010C221

QUOTED TO:  
CITY OF RIVERSIDE  
PO BOX 188  
RIVERSIDE, IA 52327

JOB LOCATION:  
CITY OF RIVERSIDE  
PO BOX 188  
RIVERSIDE, IA 52327

CONFIRM TO:

\*\*\* QUOTE ORDER - DO NOT PAY \*\*\*

CUSTOMER P.O.	SHIP VIA BEST WAY	F.O.B. ORIGIN	TERMS Net 30 Days			
ITEM NUMBER	UNIT	ORDERED	SHIPPED	BACK ORDER	PRICE	AMOUNT
REPAIR QUOTE FOR FAIRBANKS U010C221 (CITY)						
JOB LOCATION: LS 2 (BISE PATH)						
TECH NOTES: GUILD TABLE WAS TANGLED IN IMPELLER, DAMAGING SEAL AND IMPELLER. SEAL FAIL.						
*HYD123BK5 9906F	EACH	1.00	0.00	0.00	4,218.50	4,218.50
			ROTOR/STATOR			
*T6C1FW 0220F	EACH	1.00	0.00	0.00	8,584.75	8,584.75
			IMPELLER			
*T6C17A 9630F	EACH	1.00	0.00	0.00	1,750.75	1,750.75
			WEAR RING, IMPELLER			
*T6C16A 9630F	EACH	1.00	0.00	0.00	1,450.75	1,450.75
			WEAR RING, CASE			
*CP2928 8380F	EACH	1.00	0.00	0.00	26.25	26.25
			GASKET, CASE			
*HYD38AX2 9906F	EACH	1.00	0.00	0.00	127.75	127.75
			BEARING			
*HYD28BL1 9906F	EACH	1.00	0.00	0.00	40.00	40.00
			BEARING			
*M210S0100P	EACH	1.00	0.00	0.00	64.75	64.75
			O RING SET			
*CP9009A 1111A	EACH	2.00	0.00	0.00	193.75	387.50
			LEADS, MOISTURE DETECTOR			
*HYD1EV1 9906F	EACH	2.00	0.00	0.00	721.50	1,443.00
			MECHANICAL SEAL			

LEAD TIMES ARE CURRENTLY 5-7 WEEKS ARO, SUBJECT TO  
FACTORY CHANGE.

THIS QUOTE DOES NOT INCLUDE FREIGHT AND INSTALLATION

\*\*\* Continued \*\*\*





# QUOTATION

4280 E 14th Street  
Des Moines IA 50313-2604 USA

Telephone: (515) 265-2222 / FAX (515) 265-8079  
Toll Free 1-800-383-PUMP

www.electricpump.com

QUOTE NUMBER: 0153021  
QUOTE DATE: 6/14/2023  
EXPIRE DATE: 7/14/2024

SALESPERSON: ZACH GRAY  
CUSTOMER NO: 6483501  
QUOTED BY: CAC  
FAIRBANKS U010C221

QUOTED TO:  
CITY OF RIVERSIDE  
PO BOX 188  
RIVERSIDE, IA 52327

JOB LOCATION:  
CITY OF RIVERSIDE  
PO BOX 188  
RIVERSIDE, IA 52327

CONFIRM TO:

\*\*\* QUOTE ORDER - DO NOT PAY \*\*\*

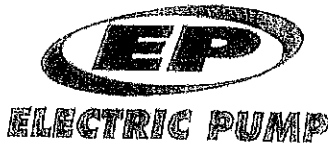
CUSTOMER P.O.	SHIP VIA BEST WAY	F.O.B. ORIGIN	TERMS Net 30 Days			
ITEM NUMBER	UNIT	ORDERED	SHIPPED	BACK ORDER	PRICE	AMOUNT

THANK YOU, CINDY CRUISE  
ccruise@electricpump.com  
CC: ZACH GRAY 712-420-5687

\*\*\* 3% CONVENIENCE FEE FOR CREDIT CARD CHARGE OVER \$5,000.00 \*\*\*

All return goods must have written approval from Electric Pump, before returning.  
Credit will not be issued without written approval : if applicable there will be a Restock Fee.

Net Order:	18,094.00
Less Discount:	0.00
Freight:	0.00
Sales Tax:	0.00
<b>Order Total:</b>	<b>18,094.00</b>



# QUOTATION

4280 E 14th Street  
Des Moines IA 50313-2604 USA

Telephone: (515) 265-2222 / FAX (515) 265-8079  
Toll Free 1-800-383-PUMP

www.electricpump.com

QUOTE NUMBER: 0152291  
QUOTE DATE: 4/19/2023  
EXPIRE DATE: 5/19/2023

SALESPERSON: ZACH GRAY  
CUSTOMER NO: 6483501  
QUOTED BY: JRF  
JOYCE

QUOTED TO:  
CITY OF RIVERSIDE  
PO BOX 188  
RIVERSIDE, IA 52327

JOB LOCATION:  
CITY OF RIVERSIDE  
PO BOX 188  
RIVERSIDE, IA 52327

CONFIRM TO:  
Luiz Ramirez

\*\*\* QUOTE ORDER - DO NOT PAY \*\*\*

CUSTOMER P.O. LUIS RAMIREZ	SHIP VIA BESTWAY	F.O.B. ORIGIN	TERMS Net 30 Days
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ITEM NUMBER	UNIT	ORDERED	SHIPPED	BACK ORDER	PRICE	AMOUNT
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WE ARE PLEASED TO OFFER THE FOLLOWING QUOTATION FOR  
REPLACEMENT OF FLYGT 3127.181-1895 SN: 0640557 WITH  
CURRENT MODEL:

0031270600437	EACH	1.00	0.00	0.00	15,231.00	15,231.00
---------------	------	------	------	------	-----------	-----------

NP425-6 10/460/3 50' FLS FV+ANSI

ESTIMATED LEAD TIME IS 12 TO 14 WEEKS ARO, SUBJECT TO  
FACTORY CHANGE.

THE PRICING ON THIS QUOTE DOES NOT INCLUDE FREIGHT,  
INSTALLATION OR START UP.

Electric Pump is committed to supplying you, our  
customer, the highest quality products & service.

[jfrohwein@electricpump.com](mailto:jfrohwein@electricpump.com)

THANK YOU, JOYCE FROHWEIN

*WWTP: digester pump*

\*\*\* 3% CONVENIENCE FEE FOR CREDIT CARD CHARGE OVER \$5,000.00 \*\*\*

All return goods must have written approval from Electric Pump, before returning.  
Credit will not be issued without written approval : if applicable there will be a Restock Fee.

Please note that we are no longer offering a thirty(30) day validity date.  
Due to the current volatility in the materials market, pricing and ship  
dates are subject to confirmation at time of order.

Net Order:	15,231.00
Less Discount:	0.00
Freight:	0.00
Sales Tax:	0.00
<b>Order Total:</b>	<b>15,231.00</b>

9/5/2023

City Administrator's Report

**Annual Exam-** Attached is an estimate from Gronewold Bell Kyhnn & Co for our FY23 annual exam. With that estimate is a procedure list of what their exam will consist of. I recommend approving this estimate as GBK has done our audits/exams before, is familiar with our system, and is less expensive than an exam from the State Auditor (around \$9,000).

**RFD Stipend-** I have reached out to our neighboring fire departments and other small towns across the state to learn more about what kind of stipend programs they have. Attached are my findings.

**Employee Handbook-** All of our revisions have been made. We are waiting for the final read-through by Bill Sueppel to be completed and the final copy to be returned to us. Once received, this will be presented to the council for adoption.

**Debbins Building-** Posting has been completed. RFPs are due by September 29<sup>th</sup> at 4pm. Bids will be made available to the Council for review at the October 2<sup>nd</sup> meeting.

**2023 Polling Location-** Due to emergency response concerns, we requested to move the Riverside Precinct's polling location. Washington County Auditor Dan Widmer expressed concerns over moving a polling location this close to an election. We have agreed to one final election held at the Fire Department. Moving forward, Dan will be researching the necessary steps to permanently move locations. I am setting up a tours for potential future locations.



Cole Smith

City Administrator



Gronewold, Bell, Kyhnn & Co. P.C.  
CERTIFIED PUBLIC ACCOUNTANTS • BUSINESS AND FINANCIAL CONSULTANTS

1910 EAST 7TH STREET BOX 369  
ATLANTIC, IOWA 50022-0369  
(712) 243-1800  
FAX (712) 243-1265  
CPA@GBKCO.COM

MARK D. KYHNN  
KENNETH P. TEGELS  
CHRISTOPHER J. NELSON  
DAVID A. GINTHER

INDEPENDENT ACCOUNTANT'S REPORT ON  
APPLYING AGREED-UPON PROCEDURES

To the Honorable Mayor  
and Members of City Council

We performed the procedures below, which were established at Iowa Code Chapter 11.6 to provide oversight of Iowa cities. Accordingly, we have applied certain procedures to selected accounting records and related information of the City of Riverside for the period July 1, 2020 through June 30, 2021, including procedures related to the City's compliance with certain Code of Iowa requirements identified below. The City of Riverside's management, which agreed to the performance of the procedures performed, is responsible for compliance with these requirements and for the City's records.

This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants and the standards for attestation engagements contained in Government Auditing Standards, issued by the Comptroller General of the United States. The City of Riverside's management has agreed to and acknowledged that the procedures performed are appropriate to meet the intended purpose to report, in accordance with Chapter 11.6 of the Code of Iowa, recommendations pertaining to selected accounting records and related information of the City including the City's compliance with certain Code of Iowa requirements. This report may not be suitable for any other purpose. The procedures performed may not address all the items of interest to a user of this report and may not meet the needs of all users of this report and, as such, users are responsible for determining whether the procedures performed are appropriate for their purposes.

The procedures we performed are summarized as follows:

1. We observed selected City Council meeting minutes for compliance with Chapters 21, 372.13(6) and 380 of the Code of Iowa.
2. We obtained an understanding of the City's internal controls to determine if proper control procedures are in place and incompatible duties, from a control standpoint, are not performed by the same employee.
3. We observed surety bond coverage for compliance with Chapter 64 of the Code of Iowa.
4. We obtained and observed the City Clerk's financial reports and selected bank reconciliations to determine whether the bank balances properly reconciled to the general ledger account balances and monthly financial reports provided to the City Council.
5. We scanned City funds for consistency with the City Finance Committee's recommended Uniform Chart of Accounts (COA) and to determine required funds and fund balances are properly maintained and accurately accounted for.

To the Honorable Mayor  
and Members of City Council

6. We observed the City's fiscal year 2021 Annual Financial Report to determine whether it was completed and accurately reflects the City's financial information.
7. The City had no investments.
8. We scanned depository resolutions, the City's investment policy and reporting of unclaimed property to the State of Iowa to determine compliance with Chapters 12C.2, 12B.10B and 556.1(12) of the Code of Iowa.
9. We scanned debt, including general obligation and revenue bonds/notes, and related transactions for proper authorization and compliance with Chapters 75, 384 and 403.9 of the Code of Iowa and to determine whether the debt and related proceeds and repayments were properly accounted for.
10. The City had no TIF.
11. We traced selected receipts to accurate accounting and consistency with the recommended COA.
12. The City had no voter approved levies.
13. We traced selected disbursements to proper approval, adequate supporting documentation, accurate accounting and consistency with the recommended COA and compliance with the public purpose criteria established by Article III, Section 31 of the Constitution of the State of Iowa.
14. We traced transfers between funds to proper authorization and accurate accounting and to determine whether transfers were proper.
15. We traced selected payroll and related transactions to proper authorization and accurate accounting and determined whether payroll was proper.
16. We observed the annual certified budget for proper authorization, certification and timely amendment.

Based on the performance of the procedures described above, we identified various findings and recommendations for the City. Our findings and recommendations are described in the Detailed Findings and Recommendations section of this report. Unless reported in the Detailed Findings and Recommendations, items of non-compliance were not noted during the performance of the specific procedures listed above.

We were engaged by the City of Riverside's management to perform this agreed-upon procedures engagement and conducted our engagement in accordance with attestation standards established by the American Institute of Certified Public Accountants. We were not engaged to and did not conduct an examination or review engagement, the objective of which would be the expression of an opinion or conclusion, respectively, on specific accounting records and related information of the City, including compliance with specific Code of Iowa requirements. Accordingly, we do not express such an opinion or conclusion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

**Proposal for Services**  
**CITY OF RIVERSIDE**  
**Year Ended June 30, 2023**

	Annual Exam	Audit
1. Estimated total hours	40	115
2. Proposed fee	\$ 3,915	\$ 9,265
3. Estimated out-of-pocket expenses and travel cost	800	1,300
4. Total proposed cost	\$ 4,715	\$ 10,565

Should unusual circumstances be discovered during our engagement or if it is determined that an audit is to be completed in accordance with the Single Audit Act which would require additional work or investigation, this would be brought to your attention. We would then discuss the matter and make separate arrangements if you wish to have us perform additional work.

5. Progress billings are submitted monthly on approximately the 10<sup>th</sup> of the month following the month of service and are payable upon presentation.
6. Additional consulting services are billed at our standard billing rates. Our current hourly billing rates are as follows:

Partners	\$135 - \$210
Manager/Supervisor	80-100
Senior	60-80
Other staff	35-60



## Fire Department Stipend Area Comps

**Lone Tree** (pop. 1,355)- No Stipend Program

**Kalona** (pop. 2,663)- No Stipend Program, but do have two volunteer firemen that are appointed by the department to handle all weekly / monthly / warranty and annual maintenance of all fire equipment. This goes above the "volunteer" label and as such we allocate for them \$350 to be paid twice yearly (\$700 per year).

**Wellman** (pop. 1,511)- No Stipend Program

**Washington** (pop. 7,255)- \$13/hr when called out

**Hills** (pop. 902)- Each items stacks on top of each other

- Fire Fighter 1 - \$100
- EMS - \$100
- 25% of calls -\$100
- Officer- \$100
- Meetings + Trainings Only (little to no call responses) - \$50-100 based on Chief's discretion

### Other communities across the state-

**West Branch** (pop. 2,564)- For night calls only, they offer \$20 a night to be on call and \$25 a night for certified medical personnel to be on night call

**Hampton** (pop. 4,307)- Hampton has a volunteer fire department. They do get stipends as follows:

- Fire calls: \$10 for the first hour, \$7.50 for every hour beyond the first hour
- Drills/meetings: \$8.00 per drill
- Fire chief: extra \$300 per quarter
- Training officer: extra \$10.00 per training
- Secretary: extra \$15.00 per fire call for doing payroll and paperwork

Fire chief is requesting it be increased to the following:

- \$20/ first hr of a call, \$15 each hr after
- \$12 an hr for drills or training
- \$12 for meetings
- \$20 per drill for training officer for training and planning

**Oelwein** (pop. 5,844)- Clothing allowance to reimburse members for wear and tear on their personal clothing/gear during training and fire incidents. This reimbursement is measured by policy through a flat-rate reimbursement multiplied by the number of meetings, drill, and incidents attended. i.e.,

- Attendance at a Fire Call or Drill \$4.00
- Attendance at a Meeting \$2.00

# Tiffin Fire Department Stipend Program

## Department Officer Stipends (annually)

Fire Chief	\$12,000
Assistant Chief	\$7,000
Medical Officer	\$5,000
Captain	\$3,500
Training Officer	\$3,000 (Instructor I certified)
Training Officer	\$1,500 (Non-certified instructor)
Lieutenant	\$1,500

## Response Stipends Per Call – EMS Only

EMT (Probationary)	\$10.00
EMT	\$15.00

## Response Stipends Per Call – Fire Department

Recruit/Probation (non-certified)	\$5.00
Firefighter I	+\$7.00
Firefighter II	+\$3.00
Fire Instructor I/EMS Instructor	+\$1.00
Fire Officer I	+\$1.00
Driver Operator – Pumper	+\$2.00
Driver Operator – Aerial	+\$2.00
<u>EMT</u>	<u>+\$5.00</u>
Maximum Per Call	\$26.00 (average call will be around \$11.00 per person)

One (1) point will be earned per call response based upon the member's certification level at the time of the call.

One-half (.5) point will be earned per call for the member writing the incident report or EMS report. Holiday pay will be 1.5 times the stipend call rate (match City recognized holidays per City Employee Handbook, current edition)

One (1) point will be added per call response with cleanup that exceeds three (3) hours.

Points for hazmat calls will be earned at a minimum of one (1) point for 1 hour and one-quarter (.25) points for each additional quarter hour thereafter, including for decontamination and cleanup. (See also Hazmat Ordinance).

## Training/Meeting Stipends

\$20 per approved department business meeting attended.

\$20 per approved department officer's meeting attended.

\$20 per approved training (maximum of 2 per month, minimum of 2 hours each).

## Membership Stipend and Pay Per Call Program

This program was started to retain volunteers and promote activity by using positive reinforcement measures.

**Stipend** – The yearly stipend for members on RFD will be based on rank within the RFD and Fire/ EMS certification. The member will be eligible for stipend and pay per call if they're in good standing order and meet minimum requirements of RFD. The following things will be evaluated, meeting attendance, training hours, and total calls made. The RFD minimum standards for those 3 things are as follows. This applies to all members who have completed 1 year of service.

### **Eligibility Requirements-**

**Service-** Minimum of 1 year

Members are eligible for a stipend and pay-per-call after their first full year of service. The membership stipend will be prorated to the months actively served beyond the 1-year service mark.

- a) This requirement can be waived if the member has previous experience and certifications

**Meeting Attendance** – 8 out of 12 monthly meetings

**Training hours** – 24 hours per year, EMS current certification hours based on the level of certification and state standards.

**Calls** – Must respond to at least 10% of all calls

**Members on Leave** – Members who are put on leave for military, school, medical, or other authorized reasons will receive a prorated stipend. This prorate will be calculated based on the months of active service.

**Pay Per Call** - The members of RFD will receive \$7 per call for every call made during the year. The call count goes from June 11<sup>th</sup> to June 10<sup>th</sup> of the following year.

Fire Chief - \$5,000

Assistant Chief - \$2,500

Deputy Chief - \$2,500

EMS Coordinator - \$1,500

Captain - \$625 x 4 = \$2,500

RFD Reg member Rank - \$200

EMS Certification - \$375

Changes to this program must be approved by the Riverside City Council.



# REQUEST FOR PROPOSAL

## SALE OF REAL ESTATE

The City of Riverside hereby requests proposals for the sale and redevelopment of a building currently owned by the City of Riverside located at 40 West 1<sup>st</sup> Street, Riverside, Iowa.

### Property Details.

The property consists of approximately 2,480 square feet, a brick commercial building which is currently vacant and is zoned commercial. Surrounding property uses are also commercial uses.

Legal description:

The West 40 feet of Lot Five (5), in Block B in the Original Plat;

Also, commencing at a point on the North line of Rail Road Street, and at the Southwest corner of Lot Five (5), in Block B, thence South 15 feet, thence East 40 feet, thence North to the North line of said Rail Road Street, thence in a Southwesterly direction along the North line of said Rail Road Street to the place of beginning;

All in the Original Plat of the City of Riverside; in Washington County, Iowa,

### Terms and Conditions of Sale.

The sale of the property will be subject to, but not limited to, the following conditions:

1. Minimum Bid. The City reserves the right to reject any proposal to purchase the property for an amount less than \$4,000.00.
2. Opportunity for Inspection. The City will allow the selected bidder a period of thirty (30) days following the date that the bidder is selected by the City to inspect the property. The bidder will be permitted to enter the property for inspection at the bidder's

*Posted: 8/30/23  
Building  
City Hall inside  
" " Outside  
Post Office  
Bank  
Trail  
Hall A/C*

*News:  
9-7  
9-14  
9-21*

**COMPLETE BID PACKET AVAILABLE AT CITY HALL & WEBSITE**

[www.riversideiowa.gov](http://www.riversideiowa.gov) Bids due in by 4PM, Friday, September 29, 2023

*The News & 3 wks.*

# FOR SALE

## SALE OF REAL ESTATE

The City of Riverside requests proposals  
for the sale and redevelopment  
of the building located at:

# 40 W 1<sup>st</sup> St.

**BIDS ACCEPTED UNTIL 4 P.M. ON FRIDAY, SEPT. 29, 2023**

*Minimum bid requirement for purchase is \$4000*



Complete bid packet available at  
City Hall and on website:

[www.riversideiowa.gov](http://www.riversideiowa.gov)



CITY of RIVERSIDE FUND BALANCES 7-31-2023

FUND	NAME	BALANCE	RESERVES	AVAILABLE FY 23
001	GENERAL	\$ 670,457.83	\$ (212,370.75)	\$ 458,087.08
002	FIRE	\$ 151,190.14	\$ (151,190.14)	\$ -
110	R.USE	\$ 14,450.68	\$ -	\$ 14,450.68
121	LOST	\$ 34,493.40	\$ -	\$ 34,493.40
145	CASINO	\$ 690,565.92	\$ -	\$ 690,565.92
301	CAP PRO	\$ 496,858.13	\$ -	\$ 496,858.13
302	CB FUNDS	\$ 1,224,242.00	\$ (1,224,242.00)	\$ -
600	WATER	\$ 167,383.49	\$ (82,103.25)	\$ 85,280.24
610	SEWER	\$ 348,193.73	\$ (126,047.00)	\$ 222,146.73
670	GARBAGE	\$ -	\$ -	\$ -
680	STORM	\$ 7,726.31	\$ -	\$ 7,726.31
	TOTAL	\$ 3,805,561.63	\$ (1,795,953.14)	\$ 2,009,608.49
<b>POOLED CASH BALANCE</b>		<b>7/31/2023</b>		
COMM. BUILDING SET A SIDE		INTEREST RATE		
SAV	67928	\$ 1,224,242.00	0.25%	
TOTAL	302 FUND	\$ 1,224,242.00		
CHECK	35308	\$ 544,140.14	0.15%	
MM	67545	\$ 1,630,342.31	0.25%	
HILLS	2656940	\$ 406,837.18	0.10%	
	TOTAL	\$ 3,805,561.63		
	LESS RESERVES	\$ (1,795,953.14)		
	LIQUID CASH	\$ 2,009,608.49	7/31/2023	

(79)



CITY OF RIVERSIDE  
 MTD TREASURERS REPORT  
 AS OF: JULY 31ST, 2023

UND	BEGINNING CASH BALANCE	M-T-D REVENUES	M-T-D EXPENSES	CASH BASIS BALANCE	NET CHANGE OTHER ASSETS	NET CHANGE LIABILITIES	ACCRUAL ENDING CASH BALANCE
001-GENERAL FUND	792,760.48	24,936.31	147,615.04	670,081.75	0.00	376.08	670,457.83
002-FIRE DEPARTMENT	154,685.47	1,160.53	4,655.86	151,190.14	0.00	0.00	151,190.14
003-EMS DEPARTMENT	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110-ROAD USE TAX	3,775.59	11,912.79	1,237.70	14,450.68	0.00	0.00	14,450.68
121-LOCAL OPTION SALES TAX	20,734.83	13,758.57	0.00	34,493.40	0.00	0.00	34,493.40
125-TIF	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145-CASINO REVENUE FUND	588,767.03	101,798.89	0.00	690,565.92	0.00	0.00	690,565.92
200-DEBT SERVICE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
301-CAPITAL PROJECTS	499,511.88	1,790.00	4,443.75	496,858.13	0.00	0.00	496,858.13
302-COMMUNITY CENTER FUNDS	1,223,982.11	259.89	0.00	1,224,242.00	0.00	0.00	1,224,242.00
600-WATER FUND	170,806.20	35,091.29	38,514.00	167,383.49	0.00	0.00	167,383.49
610-SEWER FUND	339,868.22	32,404.24	24,078.73	348,193.73	0.00	0.00	348,193.73
670-LANDFILL/GARBAGE	11,841.56	0.00	11,841.56	0.00	0.00	0.00	0.00
680-STORM WATER	6,117.99	1,608.32	0.00	7,726.31	0.00	0.00	7,726.31
<b>GRAND TOTAL</b>	<b>3,812,851.36</b>	<b>224,720.83</b>	<b>232,386.64</b>	<b>3,805,185.55</b>	<b>0.00</b>	<b>376.08</b>	<b>3,805,561.63</b>

\*\*\* END OF REPORT \*\*\*

CITY OF RIVERSIDE  
 POOLED CASH REPORT (FUND 999)  
 AS OF: JULY 31ST, 2023

FUND ACCOUNT#	ACCOUNT NAME	BEGINNING BALANCE	CURRENT ACTIVITY	CURRENT BALANCE
<u>CLAIM ON CASH</u>				
001-1110	CHECKING ACCT-GENERAL FUND	792,760.48 (	122,302.65)	670,457.83
002-1110	CHECKING ACCT-FIRE DEP.	154,685.47 (	3,495.33)	151,190.14
003-1110	CHECKING ACCT.-EMS DEPT.	0.00	0.00	0.00
110-1110	CHECKING ACCT-ROAD USE TAX	3,775.59	10,675.09	14,450.68
121-1110	CHECKING ACCT-LOST	20,734.83	13,758.57	34,493.40
125-1110	CHECKING ACCT-TIF	0.00	0.00	0.00
145-1110	CHECKING ACCT-CASINO REVENUE	588,767.03	101,798.89	690,565.92
200-1110	CHECKING ACCT-DEBT SERVICE	0.00	0.00	0.00
301-1110	CHECKING ACCT-CAP PROJECTS	499,511.88 (	2,653.75)	496,858.13
302-1110	COMMUNITY CENTER FUNDS	1,223,982.11	259.89	1,224,242.00
600-1110	CHECKING ACCT-WATER	170,806.20 (	3,422.71)	167,383.49
610-1110	CHECKING ACCT-SEWER	339,868.22	8,325.51	348,193.73
670-1110	CHECKING ACCT-GARBAGE	11,841.56 (	11,841.56)	0.00
680-1110	CHECKING ACCT-STORM WATER	6,117.99	1,608.32	7,726.31
TOTAL CLAIM ON CASH		3,812,851.36 (	7,289.73)	3,805,561.63

CASH IN BANK - POOLED CASH

999-1110	CASH IN BANK #35378	570,246.14 (	26,106.00)	544,140.14
999-1112	MONEY MARKET #67545	1,629,996.21	346.10	1,630,342.31
999-1114	HILLS BANK #2656940	388,626.90	18,210.28	406,837.18
999-1115	COMM CENTER FUND #67928	1,223,982.11	259.89	1,224,242.00
999-1117	COMMUNITY BUILDING CD#18975	0.00	0.00	0.00
999-1119	COMMUNITY BUILDING CD#19068	0.00	0.00	0.00
SUBTOTAL CASH IN BANK - POOLED CASH		3,812,851.36 (	7,289.73)	3,805,561.63

WAGES PAYABLE

999-2010	WAGES PAYABLE	0.00	0.00	0.00
SUBTOTAL WAGES PAYABLE		0.00	0.00	0.00

TOTAL CASH IN BANK - POOLED CASH		3,812,851.36 (	7,289.73)	3,805,561.63
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DUE TO OTHER FUNDS - POOLED CASH

999-2100	DUE TO OTHER FUNDS	3,812,851.36 (	7,289.73)	3,805,561.63
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TOTAL DUE TO OTHER FUNDS		3,812,851.36 (	7,289.73)	3,805,561.63
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DATES: 7/01/2023 THRU 7/31/2023

	NUMBER#	TOTAL ARREARS	TOTAL CURRENT	TOTAL BALANCE	ACTIVE ACCOUNT RECONCILIATION
ACTIVE ACCOUNTS:	544	1,239.01	76,344.43	77,583.44	NEW ACCOUNTS: 6
DISCONNECTED ACCTS:	8	93.61	272.37	365.98	DISCONNECT--NO TRF: 8
FINALED ACCOUNTS:	36	2,068.69		2,068.69	DISCONNECT--TRANSFER: 0
INACTIVE ACCOUNTS:	1,832	0.00		0.00	
<b>**GRAND TOTALS**</b>	<b>2,420</b>	<b>3,401.31</b>	<b>76,616.80</b>	<b>80,018.11</b>	

**\*\*CALCULATION SUMMARY\*\***

TOTAL CHARGES:	76,716.80
DEPOSIT RETURNS:	100.00CR
TOTAL CURRENT:	76,616.80

===== SERVICE CATEGORY TOTALS =====

CATEGORY	NUMBER	TOTAL NET	FUEL-ADJ	TOTAL TAX	TAXABLE	BILLED CONSUMPTION	UNBILLED CONSUMPTION	TOTAL CONSUMPTION
AS ANIMAL SHELTER	36	69.00	0.00	0.00	0.00			
GAR GARBAGE	759	7,235.50	0.00	0.00	0.00			
STW STORM WATER	535	1,605.00	0.00	0.00	0.00			
SWR SEWER	529	32,341.54	0.00	1,248.79	17,839.91	3656,068.0000		3656,068.0000
WTR WATER	538	32,325.78	0.00	1,891.19	31,520.76	103708,555.0000	671	103709,226.0000
<b>***TOTALS***</b>		<b>73,576.82</b>	<b>0.00</b>	<b>3,139.98</b>	<b>49,360.67</b>			

===== REVENUE CODE TOTALS =====

R/C DESCRIPTION	G/L ACCOUNT#	AMOUNT
<b>SERVICES:</b>		
100-WATER	600-4-810-1-4500	32,325.78
200-SEWER	610-4-815-1-4500	32,341.54
300-GARBAGE	001-4-950-1-4504	7,235.50
400-ANIMAL SHELTER DONATION	001-4-950-2-4700	69.00
450-STORM WATER FEE	680-4-950-4-4504	1,605.00
<b>TAX:</b>		
190-WATER EXCISE TAX	600-4-810-1-4560	1,891.19
290-SEWER TAX	600-4-810-1-4560	1,248.79
<b>**R/C TOTALS**</b>		<b>76,716.80</b>

===== RATE TABLE TOTALS =====

CAT CODE	TBL DESCRIPTION	SCHED	NO#	TOTAL NET	FUEL-ADJ	TOTAL TAX	TAXABLE	CONSUMPTION	MLT.
AS 400	A10 ANIMAL SHELTER	A10	2	20.00	0.00	0.00	0.00		
AS 400	AS1 ANIMAL SHELTER	AS1	29	29.00	0.00	0.00	0.00		
AS 400	AS2 ANIMAL SHELTER	AS2	1	2.00	0.00	0.00	0.00		
AS 400	AS3 ANIMAL SHELTER	AS3	1	3.00	0.00	0.00	0.00		
AS 400	AS5 ANIMAL SHELTER	AS5	3	15.00	0.00	0.00	0.00		
GAR 300	301 X-GARBAGE	301	4	57.00	0.00	0.00	0.00		



BOOK:

\*\*\*\*\* R A T E T A B L E T O T A L S \*\*\*\*\*

\*\* ( CONTINUED ) \*\*

CAT CODE	TBL DESCRIPTION	SCHED	NO#	TOTAL NET	FUEL-ADJ	TOTAL TAX	TAXABLE	CONSUMPTION	MLT.
GAR 300	G02 GARBAGE- 35 GAL	G02	106	1,855.00	0.00	0.00	0.00		
GAR 300	G03 GARBAGE - 65 GAL	G03	273	5,323.50	0.00	0.00	0.00		
GAR 300	R01 RECYCLING 65 GAL	R01	328	0.00	0.00	0.00	0.00		
GAR 300	R02 RECYCLING 95 GAL	R02	48	0.00	0.00	0.00	0.00		
STW 450	ST1 STORM WATER FEE	ST1	535	1,605.00	0.00	0.00	0.00		
SWR 200	S01 SEWER-RESIDENTIAL	S01	473	14,209.34	0.00	0.00	0.00	1,422,218.0000	
SWR 200	S03 SEWER-COM, IND, GOV	S03	47	17,728.56	0.00	1,234.39	17,634.19	2,227,891.0000	
SWR 200	S04 SEWER-RES SEWER ONLY	S04	4	140.00	0.00	0.00	0.00		
SWR 200	S06 SEWER - 150% RATE	S06	1	57.92	0.00	0.00	0.00	4,435.0000	
SWR 200	S07 SEWER -COM O/S CITY	S07	3	180.00	0.00	12.60	180.00		
SWR 200	S08 SEWER-COM, O/S METER	S08	1	25.72	0.00	1.80	25.72	1,524.0000	
WTR 100	W01 WATER	W01	519	31,415.76	0.00	1,879.22	31,321.39	3,576,626.0000	
WTR 100	W02 WATER - OUTSIDE CITY	W02	2	114.19	0.00	6.86	114.19	8,687.0000	
WTR 100	W03 WATER - 2ND METER	W03	6	85.18	0.00	5.11	85.18	2,197.0000	
WTR 100	W05 NO CHARGE	W05	6	0.00	0.00	0.00	0.00	100,018,143.0000	
WTR 100	WLO WATER - ACC CONS LOW	WLO	3	0.00	0.00	0.00	0.00		
WTR 100	W04 WATER NO TAX	W04	2	710.65	0.00	0.00	0.00	102,902.0000	
***TOTALS***				73,576.82	0.00	3,139.98	49,360.67		

\*\*\*\*\* M E T E R G R O U P T O T A L S \*\*\*\*\*

CODE	DESCRIPTION	BILLED	UNBILLED	TOTAL	DEMAND
		CONSUMPTION	CONSUMPTION	CONSUMPTION	CONSUMPTION
W	WATER	103,708,555.0000	671.000	103,709,226.0000	

\*\*\*\*\* R E F U N D E D D E P O S I T T O T A L S \*\*\*\*\*

CODE	DESCRIPTION	NUMBER	AMOUNT
10	WATER DEPOSIT	1	50.00CR
20	SEWER DEPOSIT	1	50.00CR
**DEPOSIT TOTALS**		2	100.00CR

DATES: 7/01/2023 THRU 7/31/2023

BOOK:

===== CUSTOMER CLASS TOTALS =====

CLASS	SERV RATE	DESCRIPTION	NUMBER	TOTAL NET	FUEL-ADJ	TAXABLE	TOTAL TAX	CONSUMPTION
CIT WTR 100 W05		NO CHARGE	4	0.00	0.00	0.00	0.00	100,004,685.0000
** CLASS TOTAL **			CIT	0.00	0.00	0.00	0.00	100,004,685.0000
COM AS 400 AS1		ANIMAL SHELTER	1	1.00	0.00	0.00	0.00	
COM GAR 300 G02		GARBAGE- 35 GAL	2	35.00	0.00	0.00	0.00	
COM GAR 300 G03		GARBAGE - 65 GAL	3	58.50	0.00	0.00	0.00	
COM GAR 300 R01		RECYCLING 65 GAL	4	0.00	0.00	0.00	0.00	
COM GAR 300 R02		RECYCLING 95 GAL	1	0.00	0.00	0.00	0.00	
** CATEGORY TOTAL **			GAR	93.50	0.00	0.00	0.00	
COM STW 450 ST1		STORM WATER FEE	49	147.00	0.00	0.00	0.00	
COM SWR 200 S01		SEWER-RESIDENTIAL	6	431.72	0.00	0.00	0.00	59,953.0000
COM SWR 200 S03		SEWER-COM, IND, GOV	41	17,586.15	0.00	17,586.15	1,231.03	2,216,153.0000
COM SWR 200 S07		SEWER -COM O/S CITY	3	180.00	0.00	180.00	12.60	
COM SWR 200 S08		SEWER-COM, O/S METER	1	25.72	0.00	25.72	1.80	1,524.0000
** CATEGORY TOTAL **			SWR	18,223.59	0.00	17,791.87	1,245.43	2,277,630.0000
COM WTR 100 W01		WATER	45	17,440.11	0.00	17,440.11	1,046.40	2,195,353.0000
COM WTR 100 W02		WATER - OUTSIDE CITY	1	56.27	0.00	56.27	3.38	4,252.0000
COM WTR 100 W05		NO CHARGE	2	0.00	0.00	0.00	0.00	13,458.0000
COM WTR 100 WLO		WATER - ACC CONS LOW	2	0.00	0.00	0.00	0.00	
COM WTR 100 WO4		WATER NO TAX	2	710.65	0.00	0.00	0.00	102,902.0000
** CATEGORY TOTAL **			WTR	18,207.03	0.00	17,496.38	1,049.78	2,315,965.0000
** CLASS TOTAL **			COM	36,672.12	0.00	35,288.25	2,295.21	
GOV STW 450 ST1		STORM WATER FEE	2	6.00	0.00	0.00	0.00	
GOV SWR 200 S03		SEWER-COM, IND, GOV	2	47.46	0.00	0.00	0.00	3,911.0000
GOV WTR 100 W01		WATER	2	47.46	0.00	0.00	0.00	3,911.0000
GOV WTR 100 WLO		WATER - ACC CONS LOW	1	0.00	0.00	0.00	0.00	
** CATEGORY TOTAL **			WTR	47.46	0.00	0.00	0.00	3,911.0000
** CLASS TOTAL **			GOV	100.92	0.00	0.00	0.00	
NTX STW 450 ST1		STORM WATER FEE	1	3.00	0.00	0.00	0.00	
NTX SWR 200 S03		SEWER-COM, IND, GOV	1	46.91	0.00	0.00	0.00	5,819.0000
NTX WTR 100 W01		WATER	1	46.91	0.00	0.00	0.00	5,819.0000
** CLASS TOTAL **			NTX	96.82	0.00	0.00	0.00	

DATES: 7/01/2023 THRU 7/31/2023

BOOK:

===== CUSTOMER CLASS TOTALS =====

CLASS	SERV RATE								
CAT	CODE	TABLE	DESCRIPTION	NUMBER	TOTAL NET	FUEL-ADJ	TAXABLE	TOTAL TAX	CONSUMPTION
RES AS	400	A10	ANIMAL SHELTER	2	20.00	0.00	0.00	0.00	
RES AS	400	AS1	ANIMAL SHELTER	28	28.00	0.00	0.00	0.00	
RES AS	400	AS2	ANIMAL SHELTER	1	2.00	0.00	0.00	0.00	
RES AS	400	AS3	ANIMAL SHELTER	1	3.00	0.00	0.00	0.00	
RES AS	400	AS5	ANIMAL SHELTER	3	15.00	0.00	0.00	0.00	
** CATEGORY TOTAL **				AS	68.00	0.00	0.00	0.00	
RES GAR	300	301	X-GARBAGE	4	57.00	0.00	0.00	0.00	
RES GAR	300	G02	GARBAGE- 35 GAL	104	1,820.00	0.00	0.00	0.00	
RES GAR	300	G03	GARBAGE - 65 GAL	270	5,265.00	0.00	0.00	0.00	
RES GAR	300	R01	RECYCLING 65 GAL	324	0.00	0.00	0.00	0.00	
RES GAR	300	R02	RECYCLING 95 GAL	47	0.00	0.00	0.00	0.00	
** CATEGORY TOTAL **				GAR	7,142.00	0.00	0.00	0.00	
RES STW	450	ST1	STORM WATER FEE	483	1,449.00	0.00	0.00	0.00	
RES SWR	200	S01	SEWER-RESIDENTIAL	467	13,777.62	0.00	0.00	0.00	1,362,265.0000
RES SWR	200	S03	SEWER-COM, IND, GOV	3	48.04	0.00	48.04	3.36	2,008.0000
RES SWR	200	S04	SEWER-RES SEWER ONLY	4	140.00	0.00	0.00	0.00	
RES SWR	200	S06	SEWER - 150% RATE	1	57.92	0.00	0.00	0.00	4,435.0000
** CATEGORY TOTAL **				SWR	14,023.58	0.00	48.04	3.36	1,368,708.0000
RES WTR	100	W01	WATER	471	13,881.28	0.00	13,881.28	832.82	1,371,543.0000
RES WTR	100	W02	WATER - OUTSIDE CITY	1	57.92	0.00	57.92	3.48	4,435.0000
RES WTR	100	W03	WATER - 2ND METER	6	85.18	0.00	85.18	5.11	2,197.0000
** CATEGORY TOTAL **				WTR	14,024.38	0.00	14,024.38	841.41	1,378,175.0000
** CLASS TOTAL **				RES	36,706.96	0.00	14,072.42	844.77	
** GRAND TOTALS **					73,576.82	0.00	49,360.67	3,139.98	

----- REPORT TOTALS -----

==== BOOK CODE TOTALS ====

BOOK:	--CURRENT--	+1 MONTHS	+2 MONTHS	+3 MONTHS	+4 MONTHS	--BALANCE--
01-BOOK 01	110.97CR	79.31	112.83	0.00	188.27	269.44
02-BOOK 02	69.62	247.46	0.00	0.00	123.81	440.89
03-BOOK 03	33.66CR	0.00	0.00	0.00	38.95	5.29
04-BOOK 04	219.73	59.79	44.89	0.00	907.06	1231.47
05-BOOK 05	84.07CR	0.00	0.00	0.00	0.00	84.07CR
06-BOOK 06	0.00	0.00	0.00	0.00	0.00	0.00
07-BOOK 07	1.28	70.63	89.67	59.11	74.79	295.48
08-BOOK 08	18.00CR	187.53	182.03	10.15	881.10	1242.81
TOTALS	43.93	644.72	429.42	69.26	2213.98	3401.31

ERRORS: 000

Income Offset 1232.13

Builder Water 951.95

Water OFF 527.32

Pay Plans 872.39

3583.79

→

<182.48>

AIK credit