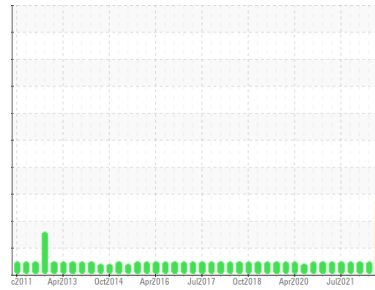




PROBLEM SUMMARY

Sample Rating Trend



WEAR



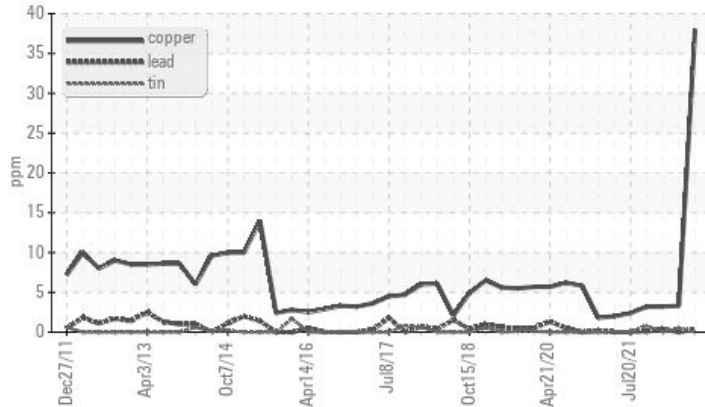
Machine Id
AHE (S/N 573798)

Component
Hydraulic System

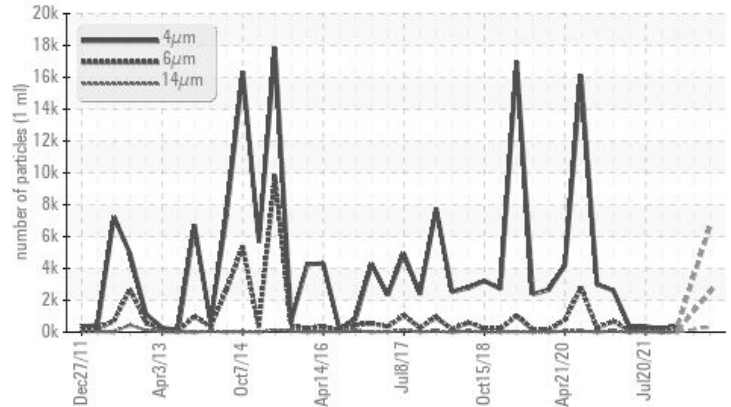
Fluid
CHEVRON HYDRAULIC AW ISO 68 (350 GAL)

COMPONENT CONDITION SUMMARY

▲ Non-ferrous Metals



▲ Particle Trend



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

| Sample Status | | | ABNORMAL | NORMAL | NORMAL |
|-----------------|-----|------------------------|-------------------|--------|----------|
| Copper | ppm | ASTM D5185m >20 | ▲ 38 | 3 | 3 |
| Particles >6µm | | ASTM D7647 >1300 | ▲ 2511 | --- | 116 |
| Particles >14µm | | ASTM D7647 >160 | ▲ 325 | --- | 15 |
| Particles >21µm | | ASTM D7647 >40 | ▲ 86 | --- | 5 |
| Particles >38µm | | ASTM D7647 >10 | ▲ 13 | --- | 0 |
| Oil Cleanliness | | ISO 4406 (c) >--/17/14 | ▲ 20/19/16 | --- | 16/14/11 |

Customer Id: AMESAI
Sample No.: MW0039886
Lab Number: 05724822
Test Package: MAR 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---------------|--------|-------------|---------|---|
| Change Filter | MISSED | Feb 13 2023 | ? | We recommend you service the filters on this component. |

HISTORICAL DIAGNOSIS

15 Jul 2022 Diag: Doug Bogart

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. Insufficient sample was received to conduct all the routine laboratory tests. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report



15 Apr 2022 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



23 Jan 2022 Diag: Angela Borella

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

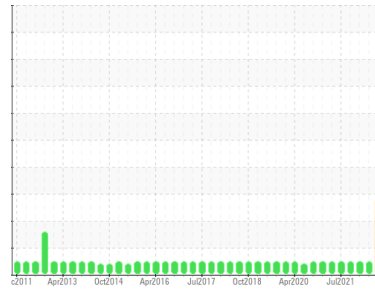
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
AHE (S/N 573798)

Component
Hydraulic System

Fluid
CHEVRON HYDRAULIC AW ISO 68 (350 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

The copper level is abnormal. All other component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

| method | limit/base | current | history 1 | history 2 | |
|---------------|-------------|--------------------|--------------|-------------|-------|
| Sample Number | Client Info | MW0039886 | MW0022939 | MW0025311 | |
| Sample Date | Client Info | 16 Oct 2022 | 15 Jul 2022 | 15 Apr 2022 | |
| Machine Age | hrs | Client Info | 14378 | 13531 | 11537 |
| Oil Age | hrs | Client Info | 14378 | 13531 | 11537 |
| Oil Changed | Client Info | Not Chngd | Not Chngd | Not Chngd | |
| Sample Status | | ABNORMAL | NORMAL | NORMAL | |

WEAR METALS

| method | limit/base | current | history 1 | history 2 | |
|----------|------------|-----------------|--------------|-----------|-----|
| Iron | ppm | ASTM D5185m >20 | 0 | 0 | <1 |
| Chromium | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | 0 | 4 | 0 |
| Aluminum | ppm | ASTM D5185m >10 | 0 | <1 | <1 |
| Lead | ppm | ASTM D5185m >20 | <1 | 0 | <1 |
| Copper | ppm | ASTM D5185m >20 | ▲ 38 | 3 | 3 |
| Tin | ppm | ASTM D5185m >10 | 0 | <1 | 0 |
| Antimony | ppm | ASTM D5185m | --- | --- | --- |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | <1 | 0 |

ADDITIVES

| method | limit/base | current | history 1 | history 2 | |
|------------|------------|-------------|------------|-----------|-----|
| Boron | ppm | ASTM D5185m | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | 0 | 0 | <1 |
| Calcium | ppm | ASTM D5185m | 50 | 38 | 42 |
| Phosphorus | ppm | ASTM D5185m | 437 | 317 | 312 |
| Zinc | ppm | ASTM D5185m | 447 | 402 | 412 |
| Sulfur | ppm | ASTM D5185m | 874 | 772 | 723 |

CONTAMINANTS

| method | limit/base | current | history 1 | history 2 | |
|-----------|------------|-----------------|--------------|-----------|----|
| Silicon | ppm | ASTM D5185m >15 | 2 | 0 | 0 |
| Sodium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Potassium | ppm | ASTM D5185m >20 | 0 | 0 | <1 |

FLUID CLEANLINESS

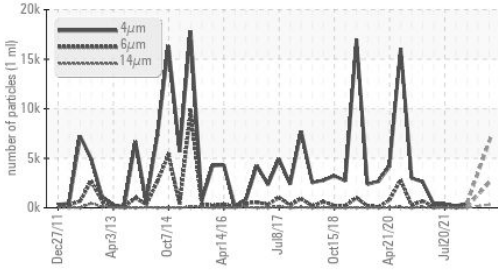
| method | limit/base | current | history 1 | history 2 |
|-----------------|------------------------|-------------------|-----------|-----------|
| Particles >4µm | ASTM D7647 | 6639 | --- | 435 |
| Particles >6µm | ASTM D7647 >1300 | ▲ 2511 | --- | 116 |
| Particles >14µm | ASTM D7647 >160 | ▲ 325 | --- | 15 |
| Particles >21µm | ASTM D7647 >40 | ▲ 86 | --- | 5 |
| Particles >38µm | ASTM D7647 >10 | ▲ 13 | --- | 0 |
| Particles >71µm | ASTM D7647 >3 | 1 | --- | 0 |
| Oil Cleanliness | ISO 4406 (c) >--/17/14 | ▲ 20/19/16 | --- | 16/14/11 |

FLUID DEGRADATION

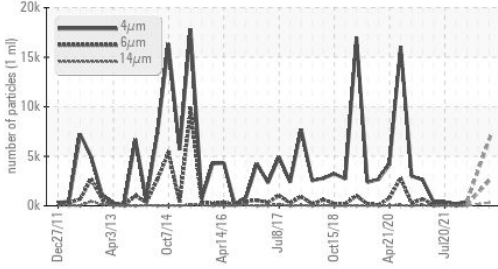
| method | limit/base | current | history 1 | history 2 | |
|------------------|------------|------------|-------------|-----------|------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.31 | --- | 0.42 |

OIL ANALYSIS REPORT

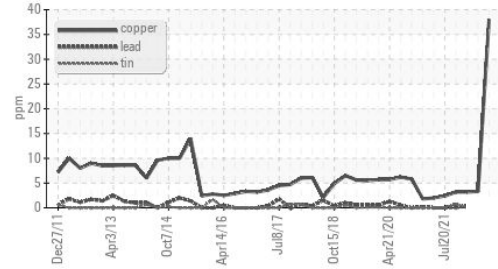
▲ Particle Trend



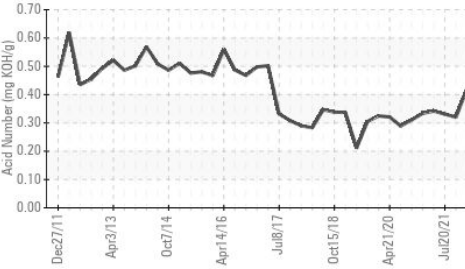
▲ Particle Trend



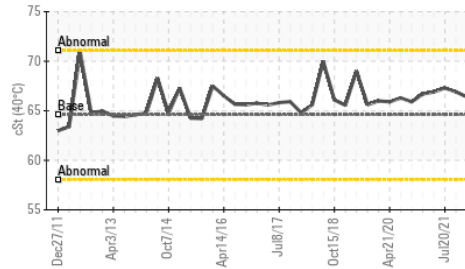
▲ Non-ferrous Metals



Acid Number



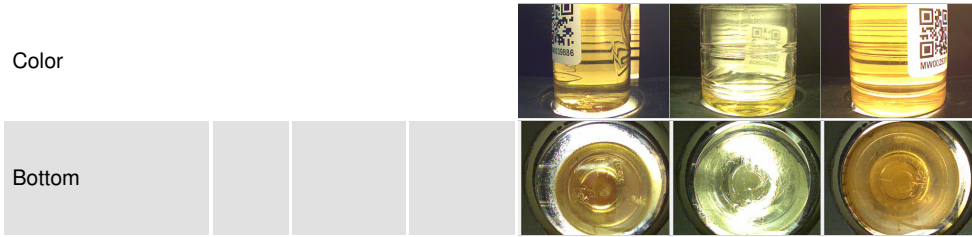
Viscosity @ 40°C



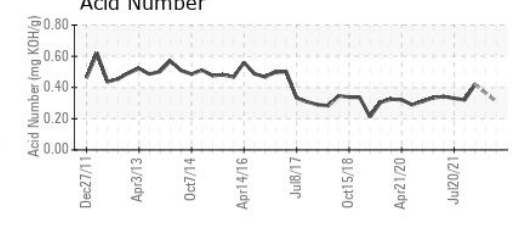
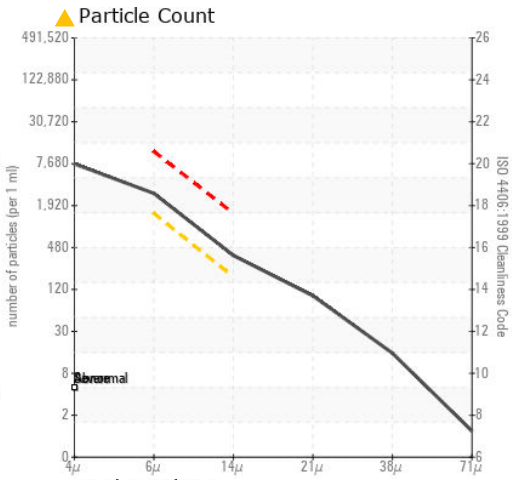
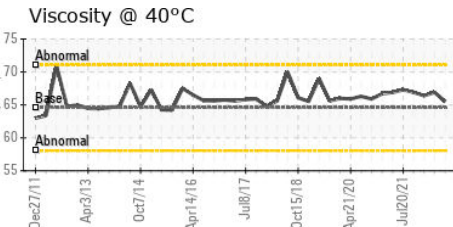
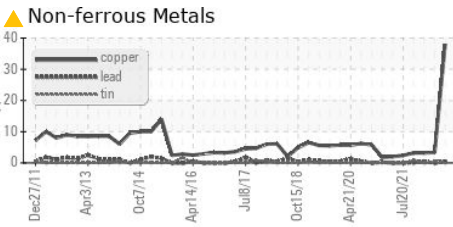
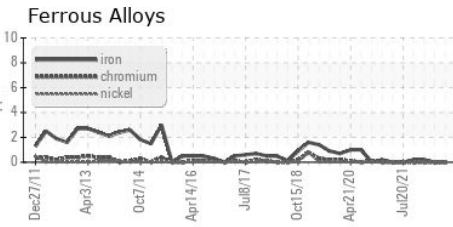
| VISUAL | method | limit/base | current | history 1 | history 2 |
|------------------|--------|------------|---------|-----------|-----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.05 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history 1 | history 2 | |
|------------------|--------|------------|---------|-----------|-----------|------|
| Visc @ 40°C | cSt | ASTM D445 | 64.6 | 65.5 | 66.91 | 66.4 |

| SAMPLE IMAGES | method | limit/base | current | history 1 | history 2 |
|---------------|--------|------------|---------|-----------|-----------|
|---------------|--------|------------|---------|-----------|-----------|



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0039886 **Received** : 23 Dec 2022
Lab Number : 05724822 **Diagnosed** : 27 Dec 2022
Unique Number : 10269403 **Diagnostician** : Don Baldridge
Test Package : MAR 2

AMERICAN RIVER TRANSPORTATION CO.
 P.O. BOX 2889
 ST. LOUIS, MO
 US 63111
 Contact: BRIAN GRIEWING
 brian.griewing@adm.com
 T:
 F: (314)481-5278

To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)