# LIEBMERR <br> conssuactor :oupmait 



## 52024 -Hydraulic System

## Sample No: LH0282264

## Oil Type: AW HYDRAULIC OIL ISO 46

## - SAMPLEINFORMATION

| Sample Number |  | LH0282264 |
| :--- | :--- | :--- |
| Sample Date |  | 21 Jan 2024 |
| Machine Hours |  | $\mathbf{3 5 0 0}$ |
| Oil Hours |  | $\mathbf{0}$ |
| Oil Changed |  | N/A |
| Sample Status |  | NORMAL |



OLLCONDITION

|  | cSt | $\bigcirc 42.1$ | --- | --- | --- |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Visc @ $40^{\circ} \mathrm{C}$ |  |  |  |  |  |
| CONTAMINATION |  |  |  |  |  |
| Water | \% | NEG | --- | --- | --- |
| Particles $>4 \mu \mathrm{~m}$ |  | $\bigcirc 2109$ | --- | --- | --- |
| Particles $>6 \mu \mathrm{~m}$ |  | $\bigcirc 457$ | --- | --- | --- |
| Particles $>14 \mu \mathrm{~m}$ |  | $\bigcirc 37$ | --- | --- | --- |
| ISO 4406:1999 (c) |  | 18/16/12 | --- | --- | --- |
| Silicon | ppm | $\bigcirc 2$ | --- | --- | --- |
| Sodium | ppm | $\bigcirc 2$ | --- | --- | --- |
| Potassium | ppm | $\bigcirc 1$ | --- | --- | --- |

## O <br> WEAR METALS

| Iron | ppm | $\bigcirc 10$ | --- | --- | --- |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Copper | ppm | $\bigcirc 11$ | --- | --- | --- |
| Lead | ppm | $\bigcirc 1$ | --- | --- | --- |
| Tin | ppm | $\bigcirc$ | --- | --- | --- |
| Aluminum | ppm | $\bigcirc<1$ | --- | --- | --- |
| Chromium | ppm | $\bigcirc 2$ | --- | --- | --- |
| Molybdenum | ppm | $\bigcirc$ | --- | --- | --- |
| Nickel | ppm | $\bigcirc<1$ | --- | --- | --- |
| Titanium | ppm | 0 | --- | --- | --- |
| Silver | ppm | 0 | --- | --- | --- |
| Manganese | ppm | $\bigcirc 0$ | --- | --- | --- |
| Vanadium | ppm | 0 | --- | --- | --- |

ADDITIVES

| Calcium | ppm | $\bigcirc \mathbf{8 6 7}$ |
| :--- | :--- | :--- |
| Magnesium | ppm | $\bigcirc \mathbf{9}$ |
| Zinc | ppm | $\bigcirc \mathbf{6 9 3}$ |
| Phosphorus | ppm | $\bigcirc \mathbf{5 9 1}$ |
| Barium | ppm | $\bigcirc \mathbf{0}$ |
| Boron | ppm | $\bigcirc<\mathbf{1}$ |

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## Diagnosis

Resample at the next service interval to monitor.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The condition of the oil is acceptable for the time in service.

| Depot: | LIEMIS |
| :--- | :--- |
| Unique No: | 5711401 |
| Signed: | Kevin Marson |
| Report Date: | 23 Jan 2024 |

Ferrous Alloys


Non-ferrous Metals


Viscosity @ $40^{\circ} \mathrm{C}$


