## Direct Strip Mill/Finishing 44" GRINDER HYDRAULIC SYSTEM (DSC014)

## Hydraulic System

## AW HYDRAULIC OIL ISO 46 (675 LTR)

## DIAGNOSIS

## Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

## Wear

All component wear rates are normal.

## Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

## Fluid Condition

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


| CONTAMINATION |  | method | limit/base | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Water |  | WC Method | $>0.05$ | NEG | NEG | NEG |
| WEAR METALS |  | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185(m) | $>40$ | <1 | $<1$ | <1 |
| Chromium | ppm | ASTM D5185(m) | $>4$ | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >20 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | $>4$ | 0 | <1 | <1 |
| Lead | ppm | ASTM D5185(m) | $>10$ | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185(m) | $>60$ | <1 | $<1$ | $<1$ |
| Tin | ppm | ASTM D5185(m) | $>4$ | 0 | 0 | 0 |
| Antimony | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) |  | 0 | 0 | 0 |


| ADDITIVES |  | method | limit/base | current | history1 | history2 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Boron | ppm | ASTM D5185(m) | 5 | $\mathbf{0}$ | 0 | 0 |
| Barium | ppm | ASTM D5185(m) | 5 | $\mathbf{0}$ | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 5 | $\mathbf{0}$ | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) |  | $\mathbf{0}$ | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | 25 | $\mathbf{6 4}$ | 65 | 65 |
| Calcium | ppm | ASTM D5185(m) | 200 | $\mathbf{1 1}$ | 11 | 11 |
| Phosphorus | ppm | ASTM D5185(m) | 300 | $\mathbf{2 7 2}$ | 283 | 286 |
| Zinc | ppm | ASTM D5185(m) | 370 | $\mathbf{3 2 9}$ | 336 | 332 |
| Sulfur | ppm | ASTM D5185(m) | 2500 | $\mathbf{6 2 3}$ | 798 | 684 |
| Lithium | ppm | ASTM D5185(m) |  | $\mathbf{< 1}$ | $<1$ | $<1$ |


| CONTAMINANTS | method | limit/base | current | history1 | history2 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Silicon | ppm | ASTM D5185 $(\mathrm{m})$ | $>20$ | $\mathbf{0}$ | 0 | 0 |
| Sodium | ppm | ASTM D5185(m) |  | $\mathbf{2}$ | 1 | 1 |
| Potassium | ppm | ASTM D5185 $(\mathrm{m})$ | $>20$ | $\mathbf{1}$ | $<1$ | 1 |


| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Particles $>4 \mu \mathrm{~m}$ | ASTM D7647 | >1300 | 714 | 484 | 529 |
| Particles $>6 \mu \mathrm{~m}$ | ASTM D7647 | $>160$ | 208 | 149 | 186 |
| Particles $>14 \mu \mathrm{~m}$ | ASTM D7647 | $>40$ | 12 | 10 | 15 |
| Particles $>21 \mu \mathrm{~m}$ | ASTM D7647 | $>10$ | 2 | 3 | 4 |
| Particles $>38 \mu \mathrm{~m}$ | ASTM D7647 | >3 | 0 | 0 | 0 |
| Particles $>71 \mu \mathrm{~m}$ | ASTM D7647 | $>3$ | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >17/14/12 | 17/15/11 | 16/14/10 | 16/15/11 |

## WEANEX <br> OIL ANALYSIS REPORT



Acid Number



| FLUID DEGRADATION |  | method | limit/base | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Acid Number (AN) | $\mathrm{mg} \mathrm{KOH} / \mathrm{g}$ | ASTM D974* | 0.57 | 0.35 | 0.42 | 0.43 |
| VISUAL |  | method | limit/base | current | history1 | history2 |
| White Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| Precipitate | scalar | Visual* | NONE | NONE | NONE | NONE |
| Silt | scalar | Visual* | NONE | NONE | NONE | NONE |
| Debris | scalar | Visual* | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | Visual* | NONE | NONE | NONE | NONE |
| Appearance | scalar | Visual* | NORML | NORML | NORML | NORML |
| Odor | scalar | Visual* | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | Visual* | >0.05 | NEG | NEG | NEG |
| Free Water | scalar | Visual* |  | NEG | NEG | NEG |
| FLUID PROPERTIES |  | method | limit/base | current | history 1 | history2 |
| Visc @ $40^{\circ} \mathrm{C}$ | cSt | ASTM D7279(m) | 46 | 46.1 | 45.9 | 46.2 |
| SAMPLE IMAGES |  | method | limit/base | current | history 1 | history2 |
| Color |  |  |  |  |  |  |
| Bottom |  |  |  |  |  |  |

GRAPHS


Non-ferrous Metals



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



## © CALA

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| Laboratory | $:$ WearCheck-C8-1175 Appleby Line, Burlington, ON L7L 5H9 AL |  |  |
| :--- | :--- | :--- | :--- |
| Sample No. | $:$ WC0837481 | Received | $: 22$ Apr 2024 |
| Lab Number | $: 02630573$ | Tested | $: 23$ Apr 2024 |
| Unique Number | $: 5763705$ | Diagnosed | $: 23$ Apr 2024-Kevin Marson |
| Test Package | $:$ IND 2 |  |  |

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted ( ${ }^{*}$ ) outside scope of accreditation, ( $m$ ) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

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