**WEAR CONTAMINATION FLUID CONDITION** 

**NORMAL NORMAL ATTENTION** 

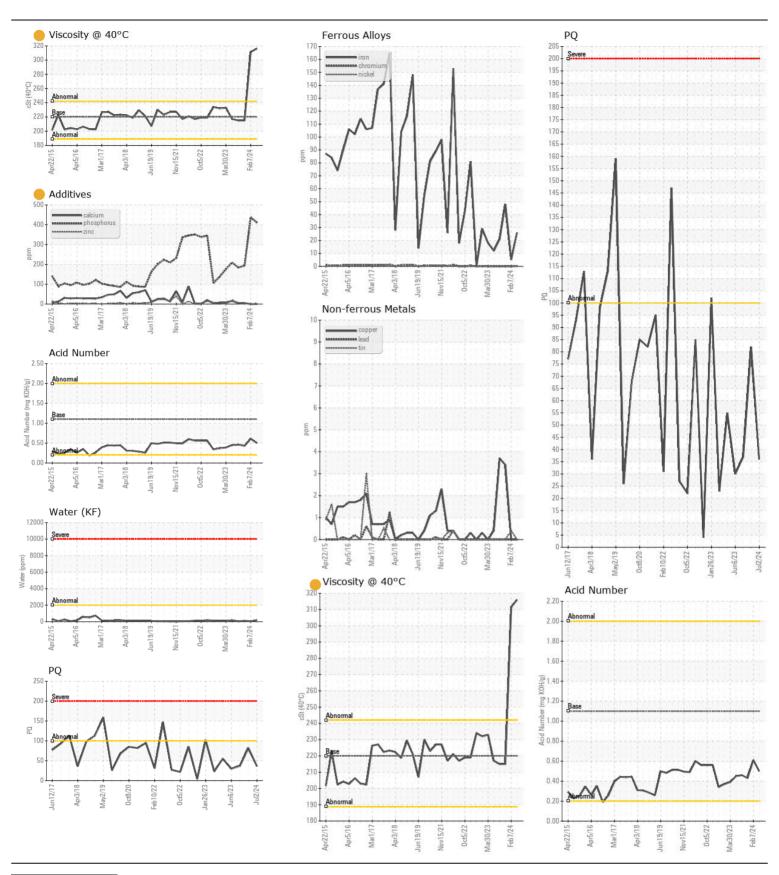
CPL Machine Id

## CPL RECOILER-MAIN (S/N 16-4400-0430)

Gearbox

| RECOMMENDATION  | Test                    | UOM      | Method      | Limit/Abn | Current     | History1    | History2   |
|---|-------------------------|----------|-------------|-----------|-------------|-------------|------------|
| No corrective action is recommended at this time. Resample at the next service interval to monitor.   | Sample Number           |          | Client Info |           | RP0044179   | -           | RP003858   |
|   | Sample Date             |          | Client Info |           | 02 Jul 2024 | 07 Feb 2024 | 29 Sep 202 |
|   | Machine Age             | hrs      | Client Info |           | 0           | 0           | 0          |
|   | Oil Age                 | hrs      | Client Info |           | 0           | 0           | 0          |
|   | Filter Age              | hrs      | Client Info |           | 0           | 0           | 0          |
|   | Oil Changed             |          | Client Info |           | N/A         | N/A         | N/A        |
|   | Filter Changed          |          | Client Info |           | N/A         | N/A         | N/A        |
|   | Sample Status           |          |             |           | ATTENTION   | ATTENTION   | NORMAL     |
| WEAR  | PQ                      |          | ASTM D8184  |           | 36          | 82          | 37         |
|   | Iron                    | ppm      | ASTM D5185m | >200      | 26          | 5           | 48         |
| All component wear rates are normal.  | Chromium                | ppm      | ASTM D5185m |           | <1          | 0           | 0          |
|   | Nickel                  | ppm      | ASTM D5185m |           | 0           | 0           | 0          |
|   | Titanium                | ppm      | ASTM D5185m |           | 0           | <1          | <1         |
|   | Silver                  | ppm      | ASTM D5185m |           | 0           | 0           | 0          |
|   | Aluminum                | ppm      | ASTM D5185m | >25       | 2           | 0           | <1         |
|   | Lead                    | ppm      | ASTM D5185m | >100      | 0           | 0           | 0          |
|   | Copper                  | ppm      | ASTM D5185m | >200      | 0           | 0           | 3          |
|   | Tin                     | ppm      | ASTM D5185m | >25       | 0           | <1          | 0          |
|   | Vanadium                | ppm      | ASTM D5185m |           | 0           | <1          | 0          |
|   | White Metal             | scalar   | *Visual     | NONE      | NONE        | MODER       | NONE       |
|   | Yellow Metal            | scalar   | *Visual     | NONE      | NONE        | NONE        | NONE       |
| CONTAMINATION   | Silicon                 | ppm      | ASTM D5185m | >50       | 15          | 19          | 12         |
| There is no indication of any contamination in the oil.   | Potassium               | ppm      | ASTM D5185m |           | <1          | 0           | 0          |
|   | Water                   | %        | ASTM D6304  | >0.2      | 0.020       | 0.005       | 0.010      |
|   | ppm Water               | ppm      | ASTM D6304  | >2000     | 208         | 50          | 102.4      |
|   | 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       | NORM       |
|   | Odor                    | scalar   | *Visual     | NORML     | NORML       | NORML       | NORM       |
|   | <b>Emulsified Water</b> | scalar   | *Visual     | >0.2      | NEG         | NEG         | NEG        |
| FLUID CONDITION   | Sodium                  | ppm      | ASTM D5185m |           | 0           | <1          | 0          |
| Additive levels indicate the addition of a different brand, or type of oil. Viscosity of sample indicates oil is within ISO 320 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid. | Boron                   | ppm      | ASTM D5185m | 25        | 1           | 0           | 1          |
|   | Barium                  | ppm      | ASTM D5185m |           | 0           | 0           | 0          |
|   | Molybdenum              | ppm      | ASTM D5185m | 5         | 0           | 0           | <1         |
|   | Manganese               | ppm      | ASTM D5185m |           | 0           | 0           | <1         |
|   | Magnesium               | ppm      | ASTM D5185m | 25        | <1          | 0           | 0          |
|   | Calcium                 | ppm      | ASTM D5185m |           | 0           | 0           | 5          |
|   | Phosphorus              | ppm      | ASTM D5185m | 375       | <u>411</u>  | 437         | 193        |
|   | Zinc                    | ppm      | ASTM D5185m | 25        | 2           | 0           | 4          |
|   | Acid Number (AN)        | mg KOH/g | ASTM D8045  | 1.10      | 0.50        | 0.61        | 0.43       |
|   | Visc @ 40°C             | cSt      | ASTM D445   | 220       | 316         | 311.5       | 215        |

Submitted By: DALE ROBINSON







Certificate L2367

Laboratory Sample No. Lab Number

: RP0044179 : 06227517 : 11111010 Unique Number

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

**Tested** Diagnosed Test Package : IND 2 (Additional Tests: PQ)

: 03 Jul 2024 : 06 Jul 2024

: 06 Jul 2024 - Don Baldridge

Mario.johnson@outokumpu.com

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.

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**HWY 43 N** 

US 36513

CALVERT, AL

**OUTOKUMPU STAINLESS USA** 

Contact: MARIO JOHNSON