



# OIL ANALYSIS REPORT

|                 |        |
|-----------------|--------|
| WEAR            | NORMAL |
| CONTAMINATION   | NORMAL |
| FLUID CONDITION | NORMAL |

Machine Id  
**HYUNDAI HL980 25046 (S/N 0150)**  
 Component  
**Transmission**  
 Fluid  
**DIESEL ENGINE OIL SAE 10W30 (10 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current     | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|----------|----------|
| Sample Number  |     | Client Info |           | JCB000302   | ---      | ---      |
| Sample Date    |     | Client Info |           | 06 Sep 2022 | ---      | ---      |
| Machine Age    | hrs | Client Info |           | 6202        | ---      | ---      |
| Oil Age        | hrs | Client Info |           | 0           | ---      | ---      |
| Filter Age     | hrs | Client Info |           | 0           | ---      | ---      |
| Oil Changed    |     | Client Info |           | Not Chngd   | ---      | ---      |
| Filter Changed |     | Client Info |           | Not Chngd   | ---      | ---      |
| Sample Status  |     |             |           | NORMAL      | ---      | ---      |

## WEAR

All component wear rates are normal.

|              |        |             |      |      |     |     |
|--------------|--------|-------------|------|------|-----|-----|
| Iron         | ppm    | ASTM D5185m | >200 | 46   | --- | --- |
| Chromium     | ppm    | ASTM D5185m | >10  | <1   | --- | --- |
| Nickel       | ppm    | ASTM D5185m |      | 0    | --- | --- |
| Titanium     | ppm    | ASTM D5185m |      | 0    | --- | --- |
| Silver       | ppm    | ASTM D5185m |      | <1   | --- | --- |
| Aluminum     | ppm    | ASTM D5185m | >50  | 4    | --- | --- |
| Lead         | ppm    | ASTM D5185m | >50  | <1   | --- | --- |
| Copper       | ppm    | ASTM D5185m | >200 | 12   | --- | --- |
| Tin          | ppm    | ASTM D5185m | >10  | <1   | --- | --- |
| Vanadium     | ppm    | ASTM D5185m |      | 0    | --- | --- |
| White Metal  | scalar | *Visual     | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual     | NONE | NONE | --- | --- |

## CONTAMINATION

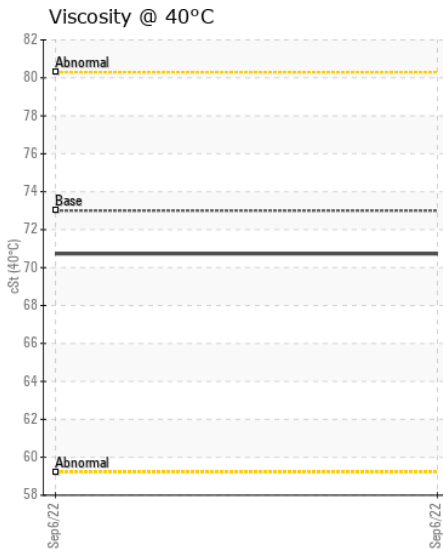
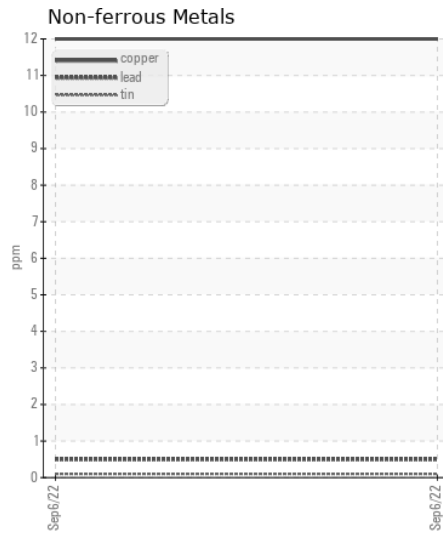
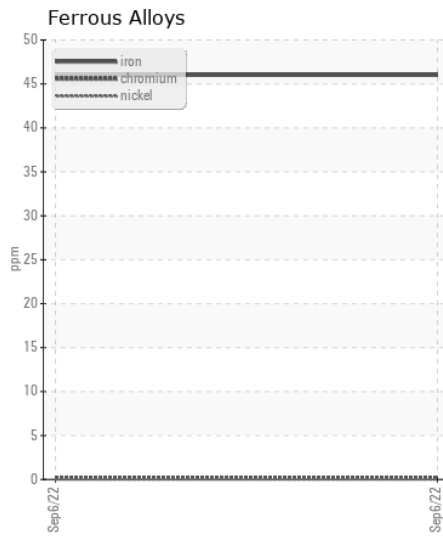
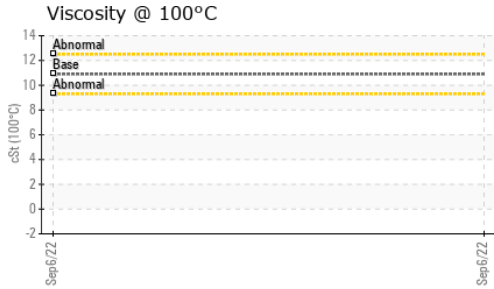
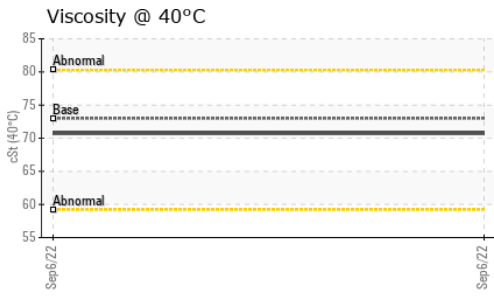
There is no indication of any contamination in the fluid.

|                  |        |             |       |       |     |     |
|------------------|--------|-------------|-------|-------|-----|-----|
| Silicon          | ppm    | ASTM D5185m | >50   | 5     | --- | --- |
| Potassium        | ppm    | ASTM D5185m | >20   | 3     | --- | --- |
| Water            |        | WC Method   | >0.1  | NEG   | --- | --- |
| Silt             | scalar | *Visual     | NONE  | NONE  | --- | --- |
| Debris           | scalar | *Visual     | NONE  | NONE  | --- | --- |
| Sand/Dirt        | scalar | *Visual     | NONE  | NONE  | --- | --- |
| Appearance       | scalar | *Visual     | NORML | NORML | --- | --- |
| Odor             | scalar | *Visual     | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual     | >0.1  | NEG   | --- | --- |

## FLUID CONDITION

The condition of the fluid is acceptable for the time in service.

|             |     |             |      |       |     |     |
|-------------|-----|-------------|------|-------|-----|-----|
| Sodium      | ppm | ASTM D5185m |      | 5     | --- | --- |
| Boron       | ppm | ASTM D5185m | 250  | 364   | --- | --- |
| Barium      | ppm | ASTM D5185m | 10   | 0     | --- | --- |
| Molybdenum  | ppm | ASTM D5185m | 100  | 93    | --- | --- |
| Manganese   | ppm | ASTM D5185m |      | <1    | --- | --- |
| Magnesium   | ppm | ASTM D5185m | 450  | 427   | --- | --- |
| Calcium     | ppm | ASTM D5185m | 3000 | 1925  | --- | --- |
| Phosphorus  | ppm | ASTM D5185m | 1150 | 761   | --- | --- |
| Zinc        | ppm | ASTM D5185m | 1350 | 964   | --- | --- |
| Sulfur      | ppm | ASTM D5185m | 4250 | 2955  | --- | --- |
| Visc @ 40°C | cSt | ASTM D445   | 73   | 70.73 | --- | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JCB000302 **Received** : 12 Sep 2022  
**Lab Number** : 05638428 **Diagnosed** : 15 Sep 2022  
**Unique Number** : 10127958 **Diagnostician** : Jonathan Hester  
**Test Package** : FLEET ( Additional Tests: FT-IR, KV100 )

**CISCO EQUIPMENT SALES LLC - SAN ANGELO**  
 620 N BELL ST  
 SAN ANGELO, TX  
 US 76903  
 Contact: CHRIS TORRES  
 ctorres@ciscoeq.com  
 T:  
 F: (325)653-5904

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)