

Area  
**[8000387127]**  
 Machine Id  
**KONE CRANE M11924**  
 Component  
**Hydraulic System**  
 Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)**



**DIAGNOSIS**

**Recommendation**  
 Vérifier les scelles et/ou les filters pour des points d'entrée des contaminants. Le reniflard d'air doit être réparé. S'il n'est pas classé, nous vous recommandons de le remplacer par un reniflard à air adapté au micron et / ou au dessicant. Si évalué, nous vous recommandons de réparer / remplacer le reniflard. Nous recommandons le remplacement des filtres de ce composant. Confirm the source of the lubricant being utilized for top-up/fill. Échantillonner de nouveau dans 30 à 45 jours afin de contrôler la situation. Le fluide était spécifié comme VOLVO SUPER HYDRAULIC OIL 46, toutefois, une comparaison avec d'autres fluides indique que ce fluide est du ISO 68 AW Hydraulic Oil. Veuillez confirmer la viscosité de l'huile et veuillez préciser la marque de votre prochain échantillon.

**Wear**  
 Les taux d'usure de tous les composants sont normaux.

**Contamination**  
 Il y a une grande quantité de limon (particules de 4 à 14 microns) dans l'huile.

**Fluid Condition**  
 La viscosité de l'échantillon se situe dans la portée de l'ISO 68; nous vous conseillons de vérifier. Ceci, en plus des niveaux d'additifs, indique que la marque ou le type d'huile ne correspond pas à ce qui a été signalé.

**SAMPLE INFORMATION**

|               | method      | limit/base  | current            | history1 | history2 |
|---------------|-------------|-------------|--------------------|----------|----------|
| Sample Number | Client Info |             | <b>VCP392414</b>   | ---      | ---      |
| Sample Date   | Client Info |             | <b>02 Dec 2023</b> | ---      | ---      |
| Machine Age   | hrs         | Client Info | <b>2855</b>        | ---      | ---      |
| Oil Age       | hrs         | Client Info | <b>0</b>           | ---      | ---      |
| Oil Changed   | Client Info |             | <b>Not Chngd</b>   | ---      | ---      |
| Sample Status |             |             | <b>SEVERE</b>      | ---      | ---      |

**CONTAMINATION**

|       | method    | limit/base | current    | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >0.1       | <b>NEG</b> | ---      | ---      |

**WEAR METALS**

|           | method | limit/base        | current      | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Iron      | ppm    | ASTM D5185(m) >20 | <b>2</b>     | ---      | ---      |
| Chromium  | ppm    | ASTM D5185(m) >10 | <b>&lt;1</b> | ---      | ---      |
| Nickel    | ppm    | ASTM D5185(m) >10 | <b>&lt;1</b> | ---      | ---      |
| Titanium  | ppm    | ASTM D5185(m)     | <b>0</b>     | ---      | ---      |
| Silver    | ppm    | ASTM D5185(m)     | <b>&lt;1</b> | ---      | ---      |
| Aluminum  | ppm    | ASTM D5185(m) >10 | <b>&lt;1</b> | ---      | ---      |
| Lead      | ppm    | ASTM D5185(m) >10 | <b>&lt;1</b> | ---      | ---      |
| Copper    | ppm    | ASTM D5185(m) >75 | <b>2</b>     | ---      | ---      |
| Tin       | ppm    | ASTM D5185(m) >10 | <b>0</b>     | ---      | ---      |
| Antimony  | ppm    | ASTM D5185(m)     | <b>0</b>     | ---      | ---      |
| Vanadium  | ppm    | ASTM D5185(m)     | <b>0</b>     | ---      | ---      |
| Beryllium | ppm    | ASTM D5185(m)     | <b>0</b>     | ---      | ---      |
| Cadmium   | ppm    | ASTM D5185(m)     | <b>0</b>     | ---      | ---      |

**ADDITIVES**

|            | method | limit/base         | current      | history1 | history2 |
|------------|--------|--------------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185(m) 14   | <b>1</b>     | ---      | ---      |
| Barium     | ppm    | ASTM D5185(m) 0.0  | <b>&lt;1</b> | ---      | ---      |
| Molybdenum | ppm    | ASTM D5185(m) 0.0  | <b>0</b>     | ---      | ---      |
| Manganese  | ppm    | ASTM D5185(m) 0.0  | <b>0</b>     | ---      | ---      |
| Magnesium  | ppm    | ASTM D5185(m) 2.6  | <b>14</b>    | ---      | ---      |
| Calcium    | ppm    | ASTM D5185(m) 49   | <b>64</b>    | ---      | ---      |
| Phosphorus | ppm    | ASTM D5185(m) 354  | <b>328</b>   | ---      | ---      |
| Zinc       | ppm    | ASTM D5185(m) 419  | <b>428</b>   | ---      | ---      |
| Sulfur     | ppm    | ASTM D5185(m) 3719 | <b>993</b>   | ---      | ---      |
| Lithium    | ppm    | ASTM D5185(m)      | <b>&lt;1</b> | ---      | ---      |

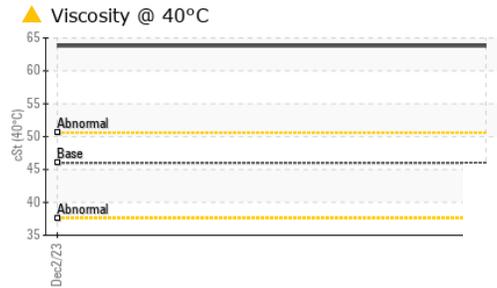
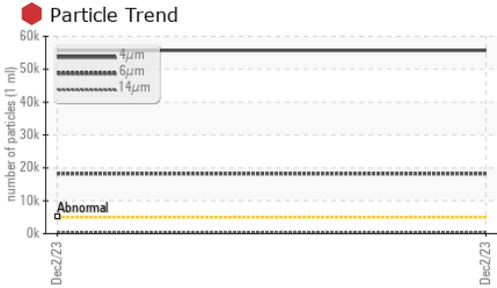
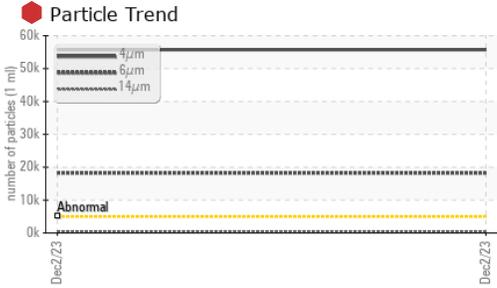
**CONTAMINANTS**

|           | method | limit/base        | current      | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185(m) >20 | <b>3</b>     | ---      | ---      |
| Sodium    | ppm    | ASTM D5185(m)     | <b>&lt;1</b> | ---      | ---      |
| Potassium | ppm    | ASTM D5185(m) >20 | <b>&lt;1</b> | ---      | ---      |

**FLUID CLEANLINESS**

|                 | method       | limit/base | current         | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm  | ASTM D7647   | >5000      | <b>55749</b>    | ---      | ---      |
| Particles >6µm  | ASTM D7647   | >1300      | <b>18257</b>    | ---      | ---      |
| Particles >14µm | ASTM D7647   | >160       | <b>499</b>      | ---      | ---      |
| Particles >21µm | ASTM D7647   | >40        | <b>60</b>       | ---      | ---      |
| Particles >38µm | ASTM D7647   | >10        | <b>2</b>        | ---      | ---      |
| Particles >71µm | ASTM D7647   | >3         | <b>1</b>        | ---      | ---      |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14  | <b>23/21/16</b> | ---      | ---      |

# OIL ANALYSIS REPORT



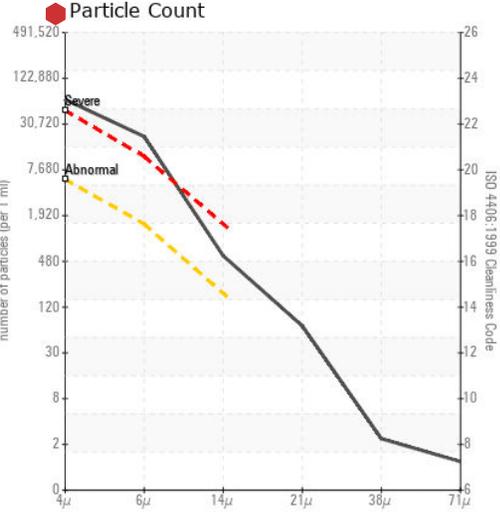
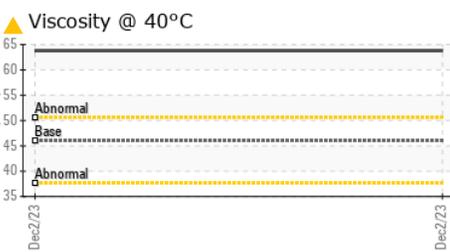
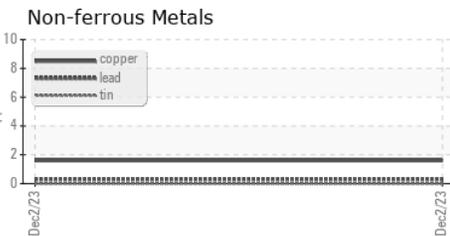
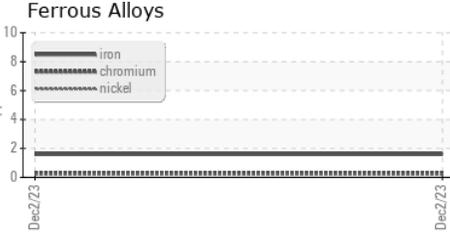
| VISUAL           | method | limit/base | current | history1 | history2 |     |
|------------------|--------|------------|---------|----------|----------|-----|
| White Metal      | scalar | Visual*    | NONE    | NONE     | ---      | --- |
| Yellow Metal     | scalar | Visual*    | NONE    | NONE     | ---      | --- |
| Precipitate      | scalar | Visual*    | NONE    | NONE     | ---      | --- |
| 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      | ---      | --- |
| Free Water       | scalar | Visual*    |         | NEG      | ---      | --- |

| FLUID PROPERTIES | method | limit/base    | current                                       | history1 | history2 |
|------------------|--------|---------------|---|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D7279(m) | 46 <span style="color: yellow;">▲</span> 63.8 | ---      | ---      |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|

|        |  |          |          |
|--------|--|----------|----------|
| Color  |  | no image | no image |
| Bottom |  | no image | no image |

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : VCP392414 **Received** : 07 Dec 2023  
**Lab Number** : 02601600 **Diagnosed** : 08 Dec 2023  
**Unique Number** : 5694685 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: PrtCount )

**Solurail Logistique Inc**  
 25 Rue Roland-Massé  
 Val-d'Or, QC  
 CA J9P 0E3  
 Contact: Service Manager

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.

T:  
F: