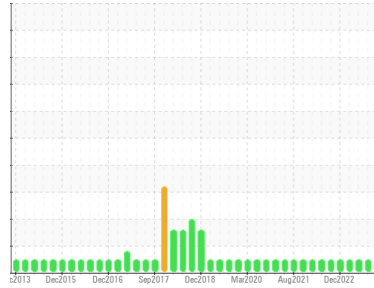




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**K-2001A Instrument Air Compressor**

Component  
**Tank Air Compressor**

Fluid  
**ATLAS COPCO ROTO Z FLUID (--- GAL)**

**DIAGNOSIS**

**Recommendation**

Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

**Fluid Condition**

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

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1    | history2    |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number      | Client Info |             |            | <b>HLC0003095</b>  | HLC0002673  | HLC0002690  |
| Sample Date        | Client Info |             |            | <b>03 Jan 2024</b> | 12 Oct 2023 | 10 Jun 2023 |
| Machine Age        | hrs         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Changed        | Client Info |             |            | <b>N/A</b>         | N/A         | N/A         |
| Sample Status      |             |             |            | <b>NORMAL</b>      | NORMAL      | NORMAL      |

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

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >70        | <b>0</b>     | 0        | 0        |
| Chromium    | ppm | ASTM D5185m | >15        | <b>&lt;1</b> | <1       | 0        |
| Nickel      | ppm | ASTM D5185m | >6         | <b>&lt;1</b> | 0        | 0        |
| Titanium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Silver      | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Aluminum    | ppm | ASTM D5185m | >10        | <b>2</b>     | <1       | 2        |
| Lead        | ppm | ASTM D5185m | >20        | <b>&lt;1</b> | 0        | 0        |
| Copper      | ppm | ASTM D5185m | >80        | <b>&lt;1</b> | 0        | 0        |
| Tin         | ppm | ASTM D5185m | >15        | <b>&lt;1</b> | 0        | 0        |
| Vanadium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |

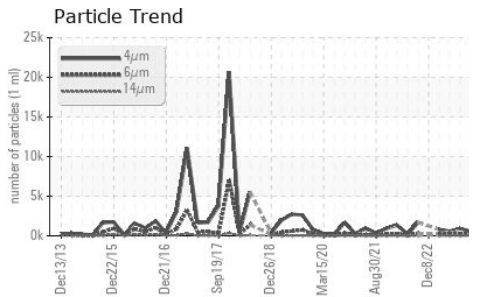
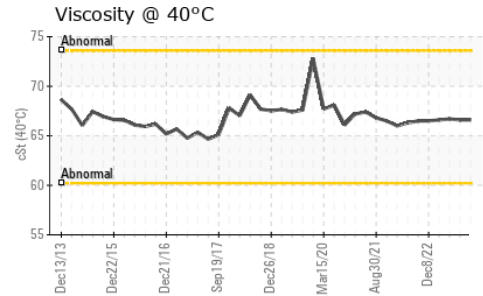
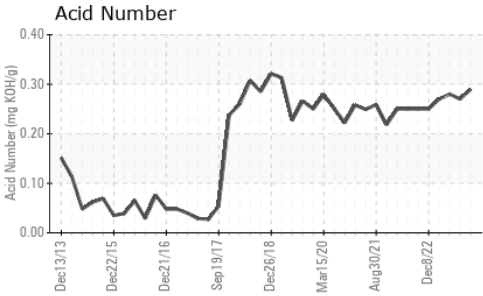
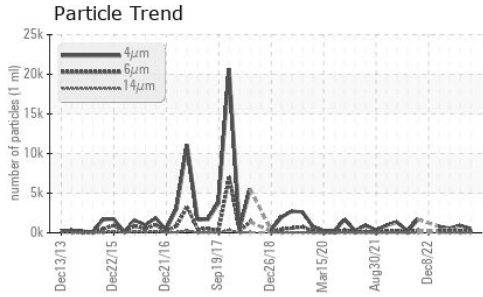
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Barium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 4        |
| Molybdenum | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Magnesium  | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | <1       |
| Calcium    | ppm | ASTM D5185m |            | <b>4</b>     | 1        | 0        |
| Phosphorus | ppm | ASTM D5185m |            | <b>496</b>   | 459      | 463      |
| Zinc       | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 1        |
| Sulfur     | ppm | ASTM D5185m |            | <b>647</b>   | 657      | 732      |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >12        | <b>&lt;1</b> | 0        | 0        |
| Sodium       | ppm | ASTM D5185m |            | <b>0</b>     | 0        | <1       |
| Potassium    | ppm | ASTM D5185m | >20        | <b>1</b>     | 1        | <1       |

| FLUID CLEANLINESS |  | method       | limit/base | current         | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   |            | <b>575</b>      | 902      | 588      |
| Particles >6µm    |  | ASTM D7647   | >2500      | <b>251</b>      | 242      | 192      |
| Particles >14µm   |  | ASTM D7647   | >320       | <b>17</b>       | 13       | 12       |
| Particles >21µm   |  | ASTM D7647   | >80        | <b>5</b>        | 4        | 3        |
| Particles >38µm   |  | ASTM D7647   | >20        | <b>0</b>        | 0        | 0        |
| Particles >71µm   |  | ASTM D7647   | >4         | <b>0</b>        | 0        | 0        |
| Oil Cleanliness   |  | ISO 4406 (c) | >--/18/15  | <b>16/15/11</b> | 17/15/11 | 16/15/11 |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 |            | <b>0.29</b> | 0.27     | 0.28     |

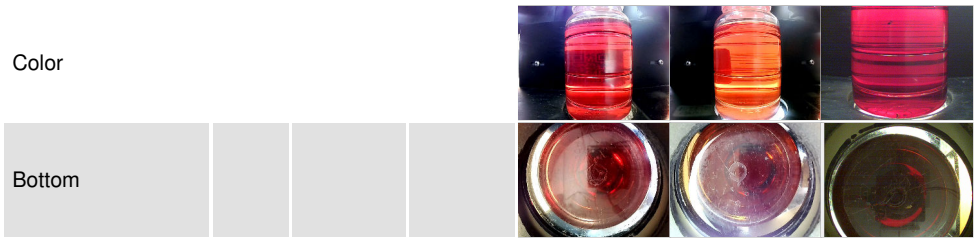
# OIL ANALYSIS REPORT



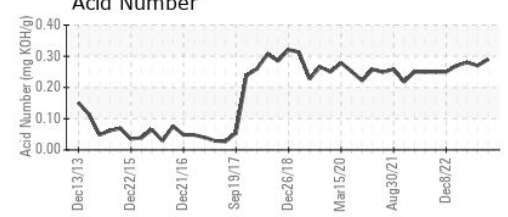
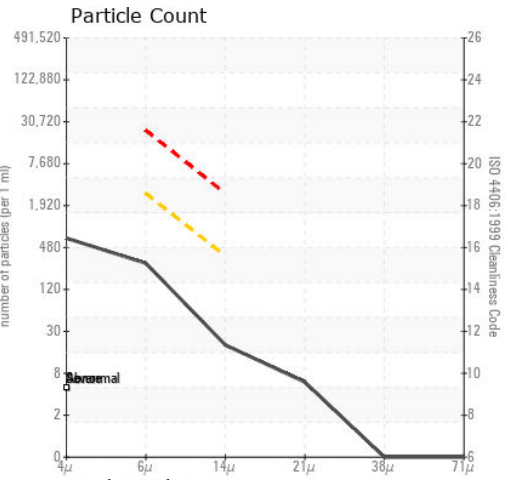
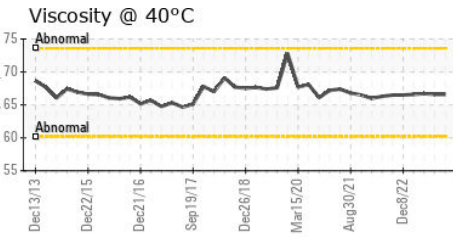
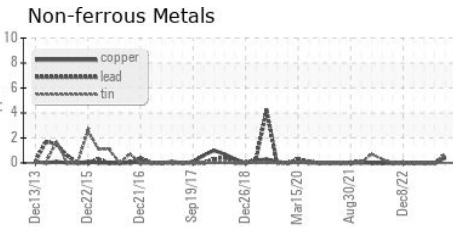
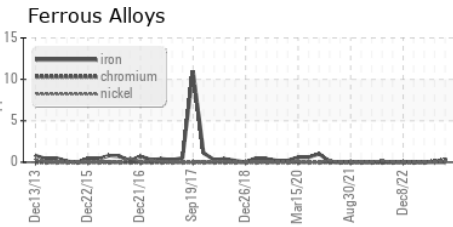
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.1    | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 66.6    | 66.6     | 66.7     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : HLC0003095 **Received** : 27 Mar 2024  
**Lab Number** : 06131395 **Tested** : 28 Mar 2024  
**Unique Number** : 10950860 **Diagnosed** : 01 Apr 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: PrtCount )

**HILCORP ALASKA LLC - ENDICOTT**  
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 slowther@hilcorp.com  
 T: (907)659-6800  
 F:

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)