



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

Area
TODD BROWN
Machine Id
[TODD BROWN] 006 587214-6
Component
Starboard Reduction Gear
Fluid
CHEVRON URSA SUPER PLUS 40 (17 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | MW0055681 | MW0042521 | MW0042525 |
| Sample Date | | Client Info | | 01 Dec 2023 | 01 Nov 2023 | 01 May 2023 |
| Machine Age | hrs | Client Info | | 48053 | 47333 | 44253 |
| Oil Age | hrs | Client Info | | 1331 | 611 | 1953 |
| Filter Age | hrs | Client Info | | 1331 | 611 | 1953 |
| Oil Changed | | Client Info | | N/A | Not Changd | N/A |
| Filter Changed | | Client Info | | N/A | Not Changd | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >150 | 0 | 0 | 2 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | <1 | <1 | <1 |
| Lead | ppm | ASTM D5185m | >100 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | 1 | 0 | 0 |
| Tin | ppm | ASTM D5185m | >10 | 0 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

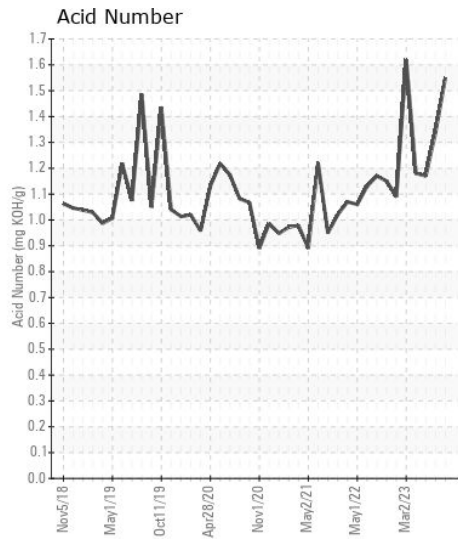
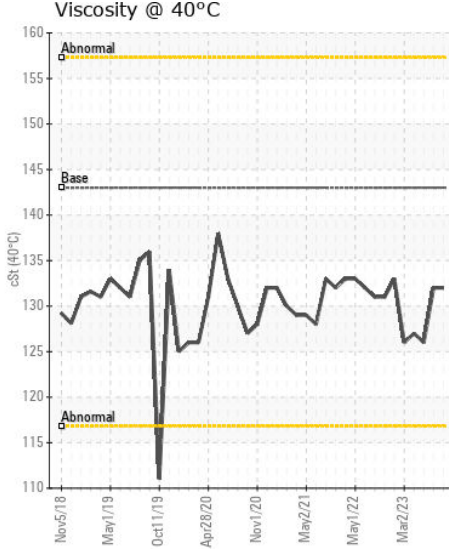
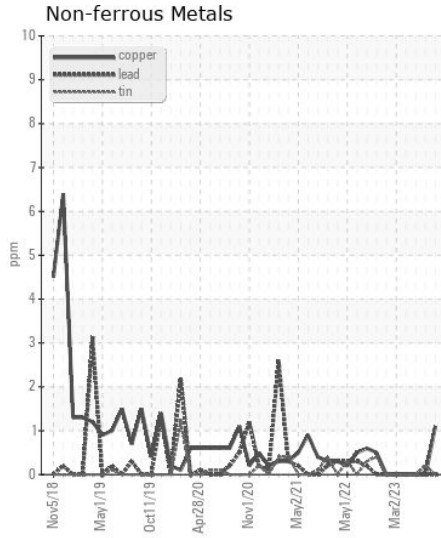
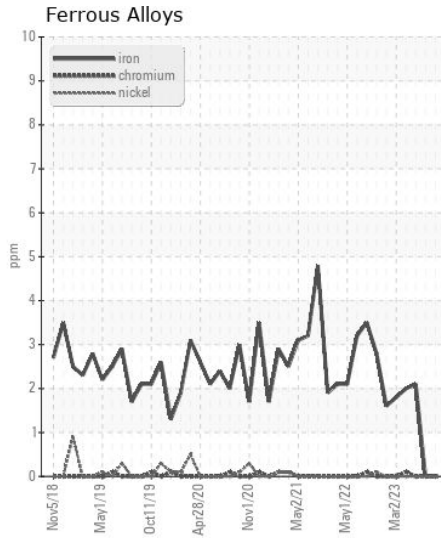
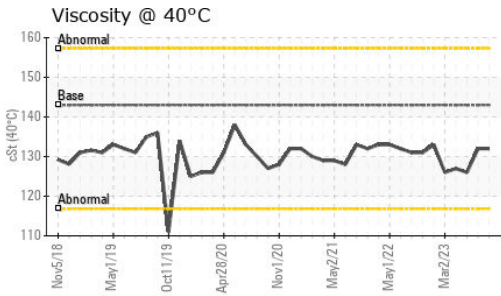
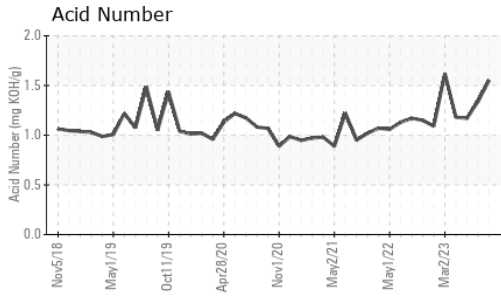
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|--------|-------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >50 | 3 | 4 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | <1 | <1 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| 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 | >0.1 | NEG | NEG | NEG |

FLUID CONDITION

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

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | 0 | 1 | 2 |
| Boron | ppm | ASTM D5185m | | 315 | 323 | 303 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 31 | 34 | 34 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | | 13 | 21 | 49 |
| Calcium | ppm | ASTM D5185m | | 2326 | 2390 | 2288 |
| Phosphorus | ppm | ASTM D5185m | 1000 | 667 | 727 | 713 |
| Zinc | ppm | ASTM D5185m | 1090 | 754 | 802 | 832 |
| Sulfur | ppm | ASTM D5185m | | 2782 | 2993 | 3553 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 1.55 | 1.34 | 1.17 |
| Visc @ 40°C | cSt | ASTM D445 | 143 | 132 | 132 | 126 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0055681 **Received** : 16 Jan 2024
Lab Number : 06062116 **Diagnosed** : 18 Jan 2024
Unique Number : 10833498 **Diagnostician** : Wes Davis
Test Package : MAR 2

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)

INGRAM BARGE
 900 S 3RD ST
 PADUCAH, KY
 US 42003

Contact: ANTHONY VAN CURA
 anthony.vancura@ingrambarga.com
 T: (270)415-4467
 F: (615)695-3697