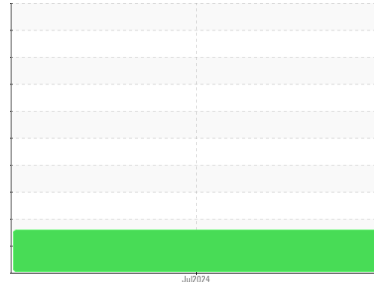




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Area

STK PILES FRONT

Machine Id

BC-10 BC-10

Component

Gear Reducer

Fluid

SHELL MORLINA S4 B 220 (--- GAL)

DIAGNOSIS

● Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

● Fluid Condition

The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|----------|----------|
| Sample Number | Client Info | | | WC0944204 | --- | --- |
| Sample Date | Client Info | | | 01 Jul 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 0 | --- | --- |
| Oil Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | Client Info | | | N/A | --- | --- |
| Sample Status | | | | ATTENTION | --- | --- |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water | WC Method | | >0.2 | NEG | --- | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >250 | 41 | --- | --- |
| Chromium | ppm | ASTM D5185m | >5 | <1 | --- | --- |
| Nickel | ppm | ASTM D5185m | >5 | <1 | --- | --- |
| Titanium | ppm | ASTM D5185m | | <1 | --- | --- |
| Silver | ppm | ASTM D5185m | | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >20 | 2 | --- | --- |
| Lead | ppm | ASTM D5185m | >50 | <1 | --- | --- |
| Copper | ppm | ASTM D5185m | >50 | <1 | --- | --- |
| Tin | ppm | ASTM D5185m | >5 | 0 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | --- | --- |
| Cadmium | ppm | ASTM D5185m | | <1 | --- | --- |

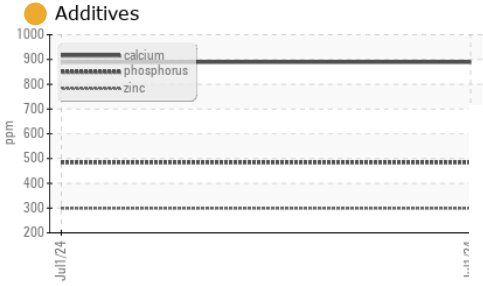
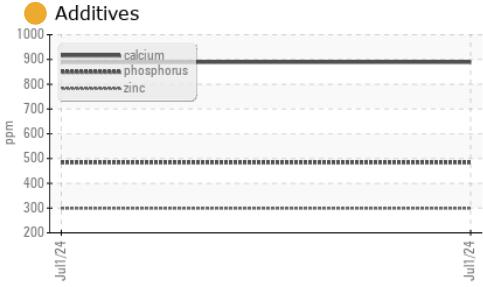
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | | 5 | --- | --- |
| Barium | ppm | ASTM D5185m | | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | <1 | --- | --- |
| Manganese | ppm | ASTM D5185m | | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185m | | 6 | --- | --- |
| Calcium | ppm | ASTM D5185m | | 889 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | 484 | --- | --- |
| Zinc | ppm | ASTM D5185m | | 299 | --- | --- |
| Sulfur | ppm | ASTM D5185m | | 1631 | --- | --- |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|-----------|----------|----------|
| Silicon | ppm | ASTM D5185m | >60 | 35 | --- | --- |
| Sodium | ppm | ASTM D5185m | | 0 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 1 | --- | --- |

| 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 | >0.2 | NEG | --- | --- |
| Free Water | scalar | *Visual | | NEG | --- | --- |



OIL ANALYSIS REPORT



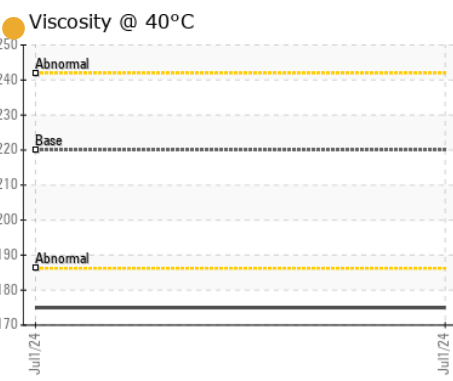
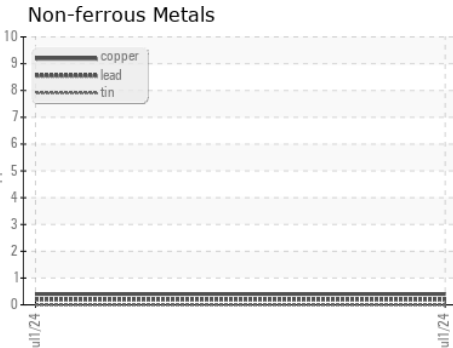
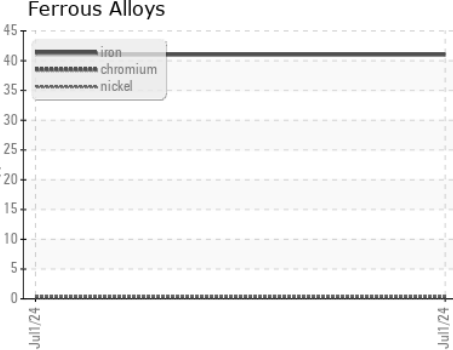
FLUID PROPERTIES

| method | limit/base | current | history1 | history2 |
|-------------|-------------------|---------|----------|----------|
| Visc @ 40°C | cSt ASTM D445 220 | 175 | --- | --- |

SAMPLE IMAGES

| method | limit/base | current | history1 | history2 |
|--------|------------|---------|----------|----------|
| Color | | | no image | no image |
| Bottom | | | no image | no image |

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0944204
Lab Number : 06236505
Unique Number : 11125339
Test Package : CONST

Received : 15 Jul 2024
Tested : 16 Jul 2024
Diagnosed : 17 Jul 2024 - Sean Felton

COVIA - OREGON - 004
 1446 DEVILS BACKBONE ROAD
 OREGON, IL
 US 61061-0156
 Contact: Brian Bunnell
 brian.bunnell@coviacorp.com
 T: (815)677-8700
 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)