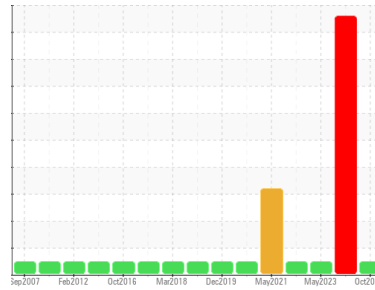


GREASE ANALYSIS

Sample Rating Trend



NORMAL



Area
Cranes [450207986]
Machine Id
Crane - Mid Ship Slew Brg Grease (S/N Sample Tag MA-04002)
Component
Aft Grease
Fluid
PETRO CANADA PRECISION XL EP2 (--- LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Grease Condition

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

Contaminants

There is no indication of any contamination in the grease.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|-----------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | PC | PC0061563 | PC0052676 |
| Sample Date | Client Info | 04 Oct 2023 | 12 Aug 2023 | 02 May 2023 |
| Machine Age | hrs | Client Info | 0 | 0 |
| Grease Age | hrs | Client Info | 0 | 0 |
| Grease Serviced | Client Info | N/A | N/A | N/A |
| Sample Status | | NORMAL | SEVERE | NORMAL |

WEAR METALS

| method | limit/base | current | history1 | history2 | | |
|----------|-------------|---------------|-------------|--------------|-------|-----|
| PQ | ASTM D8184* | >200 | 6910 | 390 | 4150 | |
| Iron | ppm | ASTM D5185(m) | >250 | 315 | ▲ 648 | 382 |
| Chromium | ppm | ASTM D5185(m) | >10 | 1 | ▲ 7 | 1 |
| Nickel | ppm | ASTM D5185(m) | >5 | <1 | ▲ 2 | <1 |
| Cadmium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185(m) | | 0 | 4 | <1 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | <1 | 0 |
| Lead | ppm | ASTM D5185(m) | >25 | <1 | 2 | <1 |
| Copper | ppm | ASTM D5185(m) | >75 | <1 | 2 | <1 |
| Tin | ppm | ASTM D5185(m) | >5 | 0 | 1 | 0 |
| Silver | ppm | ASTM D5185(m) | >5 | <1 | 0 | 0 |

ADDITIVES

| method | limit/base | current | history1 | history2 | | |
|------------|------------|---------------|----------|-----------|-------|----|
| Boron | ppm | ASTM D5185(m) | | 2 | 2 | <1 |
| Magnesium | ppm | ASTM D5185(m) | | 3 | ▲ 42 | 5 |
| Manganese | ppm | ASTM D5185(m) | | 4 | 5 | 5 |
| Molybdenum | ppm | ASTM D5185(m) | | 43 | ▲ 122 | 62 |
| Phosphorus | ppm | ASTM D5185(m) | | 58 | 27 | 61 |
| Zinc | ppm | ASTM D5185(m) | | 66 | 54 | 73 |
| Antimony | ppm | ASTM D5185(m) | | 6 | 9 | 15 |

THICKENER/SOAP

| method | limit/base | current | history1 | history2 | | |
|----------|------------|---------------|----------|--------------|-------|-----|
| Aluminum | ppm | ASTM D5185(m) | | <1 | ▲ 218 | 1 |
| Barium | ppm | ASTM D5185(m) | | 3 | 6 | <1 |
| Calcium | ppm | ASTM D5185(m) | | 99 | ▲ 889 | 94 |
| Sodium | ppm | ASTM D5185(m) | | 19 | 21 | 24 |
| Lithium | ppm | ASTM D5185(m) | | 172 | ▲ 45 | 189 |
| Sulfur | ppm | ASTM D5185(m) | | 646 | 664 | 675 |

CONTAMINANTS

| method | limit/base | current | history1 | history2 | | |
|-----------|------------|---------------|----------|--------------|-------|---|
| Silicon | ppm | ASTM D5185(m) | >150 | 3 | ◆ 675 | 3 |
| Potassium | ppm | ASTM D5185(m) | | <1 | 5 | 6 |

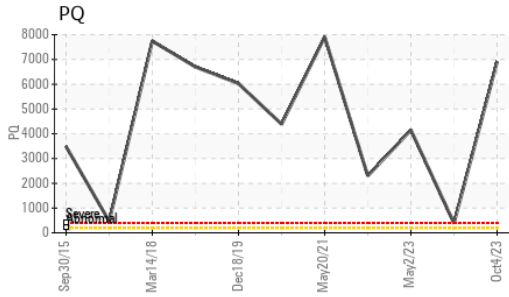
GREASE CONDITION

| method | limit/base | current | history1 | history2 | |
|------------------|------------------------|---------|-------------------|----------|---------|
| Grease Color | Visual* | Brown | Brown | Black | Black |
| Texture | In-house* | Stringy | Long fiber | Stringy | Stringy |
| NLGI Consistency | NLGI Scale SKF Method* | 2 | 1-2 | 2 | 3 |

Particle Filter (Magn: 10 x)

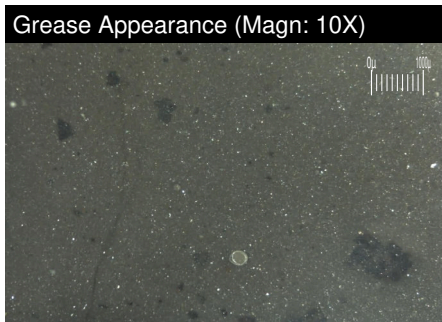
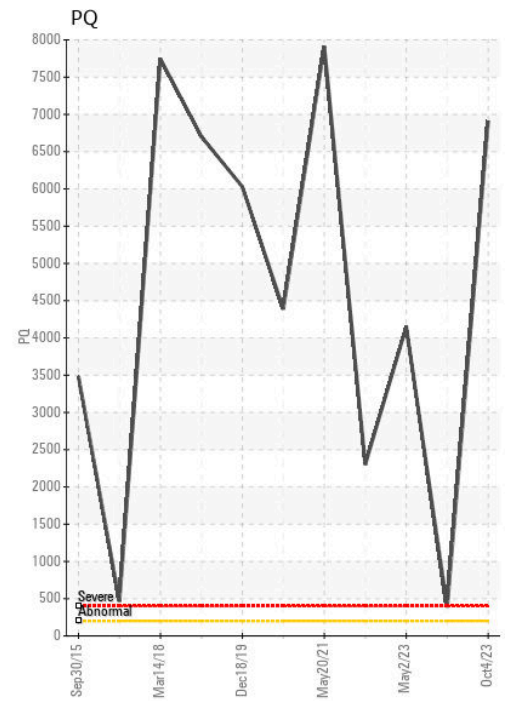
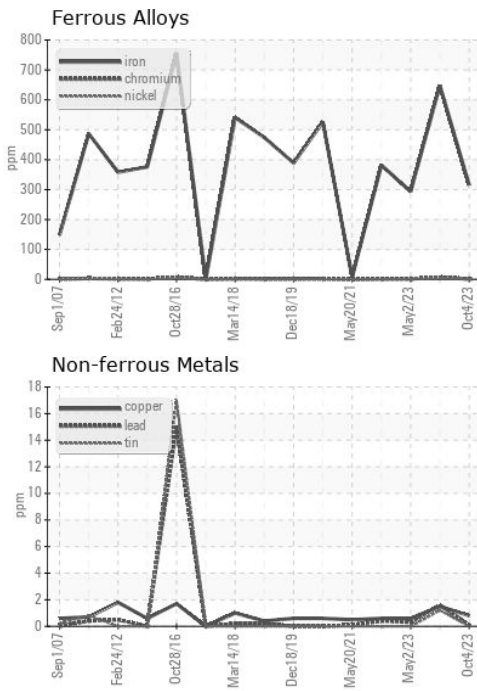


GREASE ANALYSIS



| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
| Color | | | | | |
| Bottom | | | | | |
| PrtFilter | | | | | |

GRAPHS



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC
Lab Number : 02590169
Unique Number : 5659235
Test Package : GRS 1 (Additional Tests: BottomAnalysis, PrtCount, PrtFilter)

Received : 18 Oct 2023
Diagnosed : 20 Oct 2023
Diagnostician : Bill Quesnel

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.

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