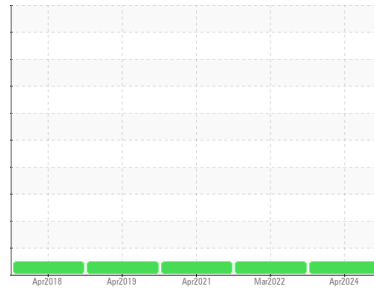




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

US MOTORS EM1006-L - FLUSH PUMP

Component

Lower Bearing

Fluid

ROYAL PURPLE SYNFILM GT 32 (2 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The water content is negligible. 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 | | | RP0032633 | RP0005148 | RP0005151 |
| Sample Date | Client Info | | | 24 Apr 2024 | 30 Mar 2022 | 28 Apr 2021 |
| Machine Age | hrs | Client Info | | 0 | 650 | 649 |
| Oil Age | hrs | Client Info | | 0 | 1 | 649 |
| Oil Changed | Client Info | | | Not Changed | Not Changed | Not Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

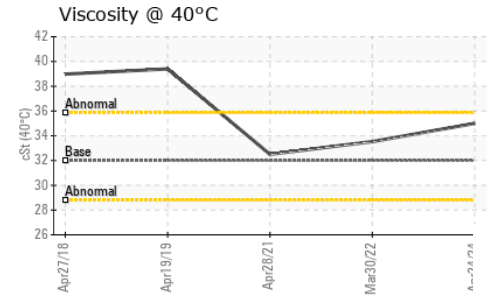
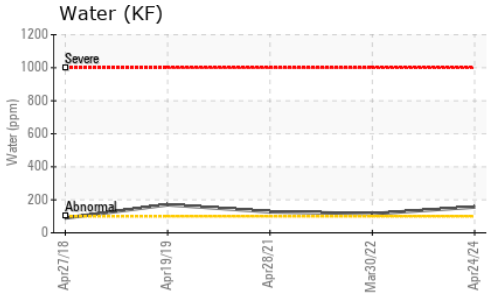
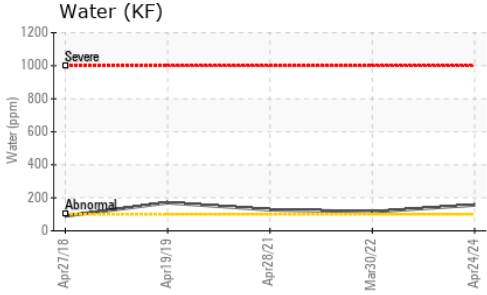
| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >20 | 9 | 2 | 2 |
| Chromium | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Aluminum | ppm | ASTM D5185m | >20 | 0 | <1 | 0 |
| Lead | ppm | ASTM D5185m | >20 | 0 | <1 | <1 |
| Copper | ppm | ASTM D5185m | >20 | <1 | 3 | 2 |
| Tin | ppm | ASTM D5185m | >20 | 0 | <1 | 0 |
| Antimony | ppm | ASTM D5185m | | --- | --- | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | | 0 | 1 | <1 |
| Barium | ppm | ASTM D5185m | | <1 | 0 | 12 |
| Molybdenum | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 69 | 50 | 43 |
| Calcium | ppm | ASTM D5185m | | <1 | 6 | <1 |
| Phosphorus | ppm | ASTM D5185m | | 0 | 11 | 9 |
| Zinc | ppm | ASTM D5185m | | 23 | 103 | 91 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >15 | <1 | <1 | 0 |
| Sodium | ppm | ASTM D5185m | | 2 | 2 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 0 | <1 |
| Water | % | ASTM D6304 | >2 | 0.015 | 0.011 | 0.012 |
| ppm Water | ppm | ASTM D6304 | | 156 | 115.9 | 127.1 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.32 | 0.31 | 0.245 |

OIL ANALYSIS REPORT

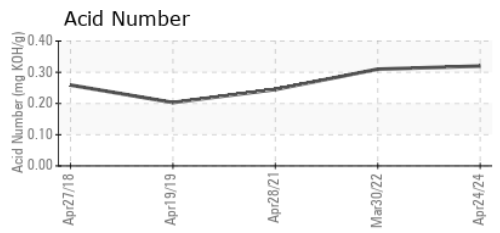
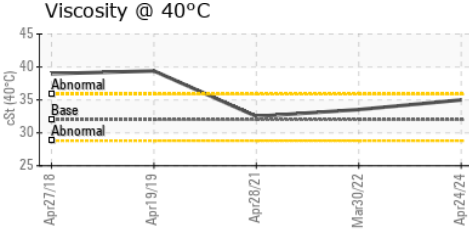
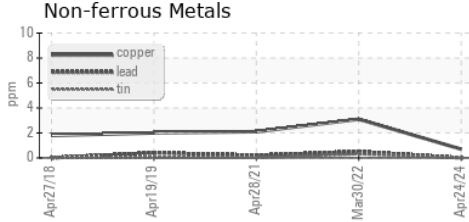
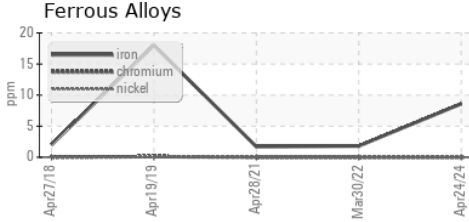


| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | LIGHT | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >2 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 32 | 35.0 | 33.53 | 32.5 |

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

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0032633
Lab Number : 06175593
Unique Number : 11021646
Test Package : IND 2
Received : 10 May 2024
Tested : 13 May 2024
Diagnosed : 13 May 2024 - Doug Bogart

SADDLEHORN PIPELINE
 23634 COUNTY RD 30
 HUDSON, CO
 US 80642
 Contact: JASON LEFTWICH
 jason.leftwich@magellanlp.com

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)