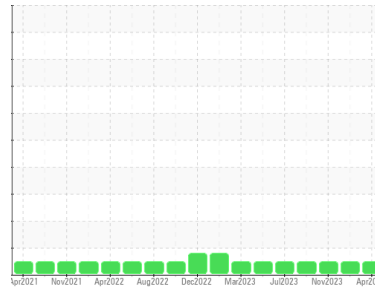




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
SCHLUMBERGER SITE 1 HP PUMP C
 Component
Pump
 Fluid
ROYAL PURPLE SYNFILM GT 46 (--- QTS)

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. The amount and size of particulates present in the system are acceptable.

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 | | WC0837924 | WC0837890 | WC0837906 |
| Sample Date | Client Info | | 25 Apr 2024 | 01 Jan 2024 | 17 Nov 2023 |
| Machine Age | hrs | Client Info | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | 0 | 0 | 0 |
| Oil Changed | Client Info | | N/A | N/A | N/A |
| Sample Status | | | NORMAL | NORMAL | NORMAL |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >.1 | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|----------|----------|----------|
| Iron | ppm | ASTM D5185m >90 | 0 | 0 | 0 |
| Chromium | ppm | ASTM D5185m >5 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m >5 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m >3 | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >7 | 0 | 0 | <1 |
| Lead | ppm | ASTM D5185m >12 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m >30 | 8 | 8 | 6 |
| Tin | ppm | ASTM D5185m >9 | 0 | 0 | 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 | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m 0 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m 95 | 15 | 15 | 21 |
| Calcium | ppm | ASTM D5185m 0 | 0 | 0 | 2 |
| Phosphorus | ppm | ASTM D5185m 0 | 0 | 6 | 18 |
| Zinc | ppm | ASTM D5185m 0 | 0 | 0 | 0 |
| Sulfur | ppm | ASTM D5185m 15000 | 19224 | 16173 | 16466 |

CONTAMINANTS

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

FLUID CLEANLINESS

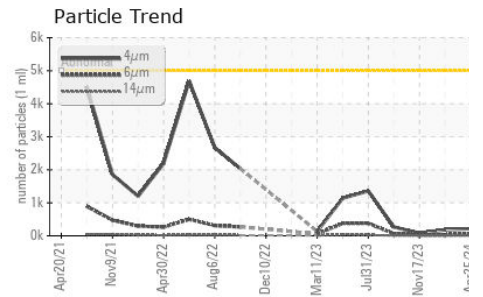
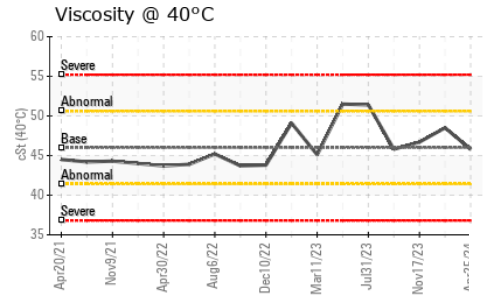
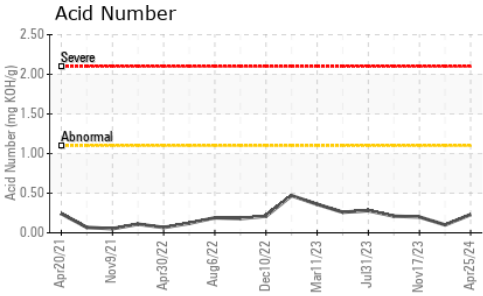
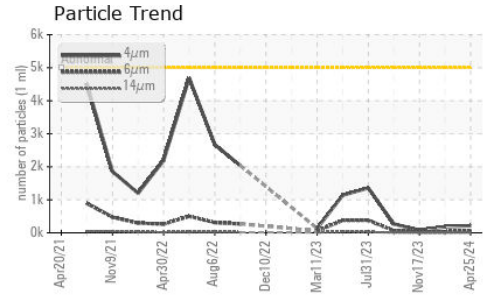
| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm | ASTM D7647 | >5000 | 216 | 180 | 80 |
| Particles >6µm | ASTM D7647 | >1300 | 68 | 33 | 29 |
| Particles >14µm | ASTM D7647 | >160 | 6 | 5 | 5 |
| Particles >21µm | ASTM D7647 | >40 | 2 | 3 | 2 |
| Particles >38µm | ASTM D7647 | >10 | 0 | 0 | 0 |
| Particles >71µm | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | 15/13/10 | 15/12/10 | 13/12/10 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.23 | 0.10 | 0.20 |



OIL ANALYSIS REPORT

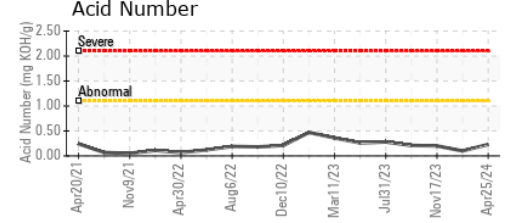
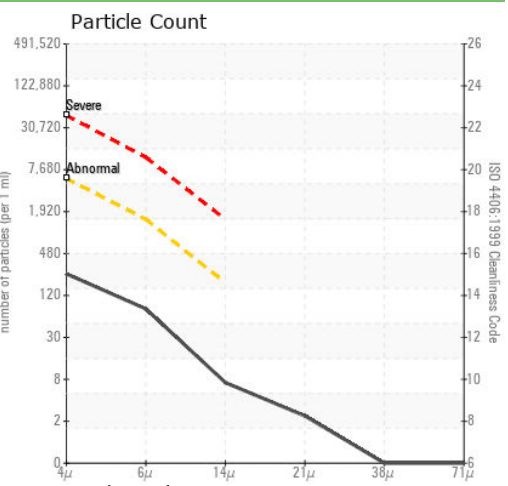
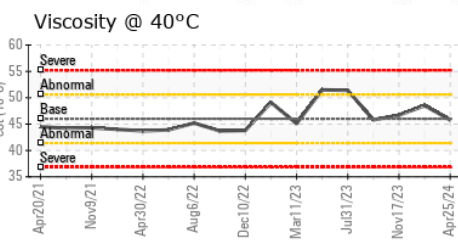
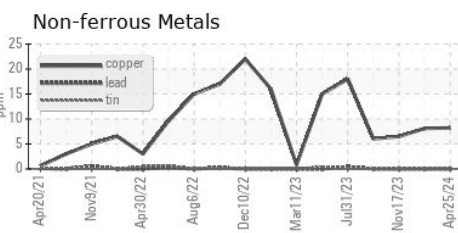
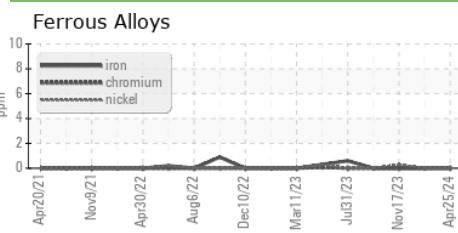


| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | 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 | >.1 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 46.0 | 45.8 | 48.5 |

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

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0837924 **Received** : 26 Apr 2024
Lab Number : 06161410 **Tested** : 29 Apr 2024
Unique Number : 10996833 **Diagnosed** : 30 Apr 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: PrtCount)

HILCORP ENERGY - VANDERBILT
 1421 MOBIL OIL ROAD
 VANDERBILT, TX
 US 77991
 Contact: DEREK HARGRAVE
 dhargrave@hilcorp.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)