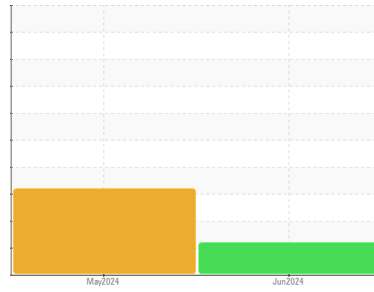


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
NK 112822 - LPH2
 Component
Compressor
 Fluid
CIMARRON HB-150 (--- GAL)

DIAGNOSIS

- Recommendation**
 No corrective action is recommended at this time. Resample at the next service interval to monitor.
- Wear**
 All component wear rates are normal.
- Contamination**
 There is a moderate amount of silt (particulates < 14 microns in size) present 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 | | TO90004079 | TO90004251 | --- |
| Sample Date | Client Info | | 06 Jun 2024 | 06 May 2024 | --- |
| Machine Age | hrs | Client Info | 0 | 0 | --- |
| Oil Age | hrs | Client Info | 0 | 0 | --- |
| Oil Changed | Client Info | | N/A | N/A | --- |
| Sample Status | | | ATTENTION | SEVERE | --- |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >50 | 0 | 2 | --- |
| Chromium | ppm | ASTM D5185m >10 | 0 | <1 | --- |
| Nickel | ppm | ASTM D5185m | <1 | <1 | --- |
| Titanium | ppm | ASTM D5185m | 0 | <1 | --- |
| Silver | ppm | ASTM D5185m | 0 | 0 | --- |
| Aluminum | ppm | ASTM D5185m >25 | <1 | 2 | --- |
| Lead | ppm | ASTM D5185m >25 | 0 | <1 | --- |
| Copper | ppm | ASTM D5185m >50 | 0 | <1 | --- |
| Tin | ppm | ASTM D5185m >15 | <1 | <1 | --- |
| Vanadium | ppm | ASTM D5185m | 0 | <1 | --- |
| Cadmium | ppm | ASTM D5185m | 0 | <1 | --- |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|---------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m 0 | 0 | 0 | --- |
| Barium | ppm | ASTM D5185m 0 | 0 | 1 | --- |
| Molybdenum | ppm | ASTM D5185m 0 | 0 | <1 | --- |
| Manganese | ppm | ASTM D5185m | <1 | 0 | --- |
| Magnesium | ppm | ASTM D5185m 0 | 1 | <1 | --- |
| Calcium | ppm | ASTM D5185m 0 | 0 | 4 | --- |
| Phosphorus | ppm | ASTM D5185m 0 | 8 | 18 | --- |
| Zinc | ppm | ASTM D5185m 0 | 4 | 3 | --- |
| Sulfur | ppm | ASTM D5185m 0 | 46 | 7 | --- |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >25 | 2 | 1 | --- |
| Sodium | ppm | ASTM D5185m | 0 | <1 | --- |
| Potassium | ppm | ASTM D5185m >20 | 5 | 1 | --- |
| Water | % | ASTM D6304 >2.26 | 0.818 | ▲ 1.34 | --- |
| ppm Water | ppm | ASTM D6304 >22600 | 8180 | ▲ 13400 | --- |

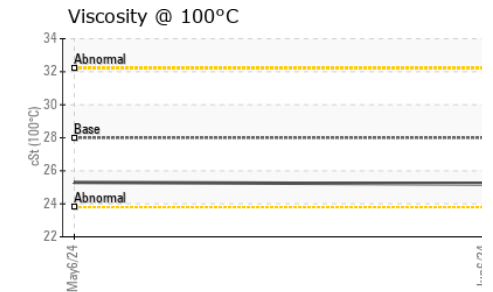
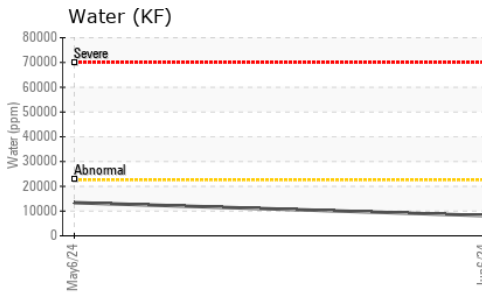
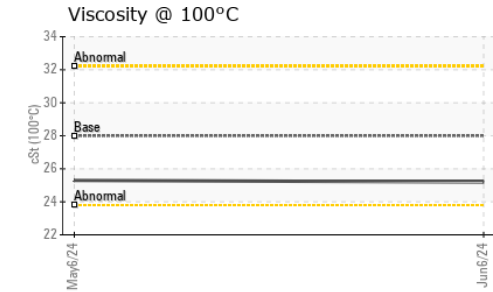
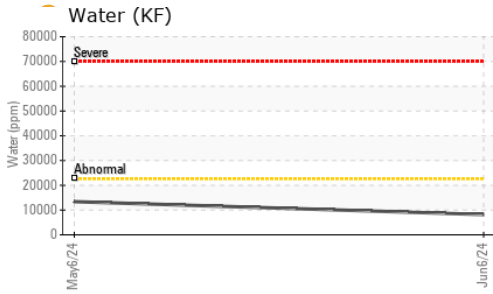
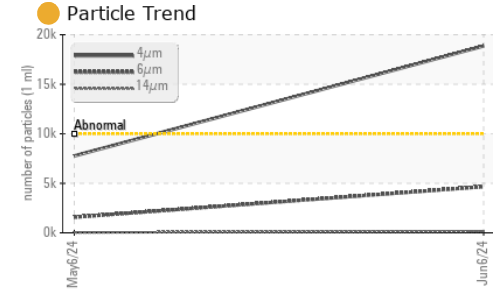
FLUID CLEANLINESS

| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-------------------|----------|----------|
| Particles >4µm | ASTM D7647 | >10000 | ● 18864 | 7767 | --- |
| Particles >6µm | ASTM D7647 | >2500 | ● 4665 | 1578 | --- |
| Particles >14µm | ASTM D7647 | >320 | 156 | 34 | --- |
| Particles >21µm | ASTM D7647 | >80 | 28 | 3 | --- |
| Particles >38µm | ASTM D7647 | >20 | 1 | 1 | --- |
| Particles >71µm | ASTM D7647 | >4 | 0 | 1 | --- |
| Oil Cleanliness | ISO 4406 (c) | >20/18/15 | ● 21/19/14 | 20/18/12 | --- |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|------------|--------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.064 | 0.14 | --- |

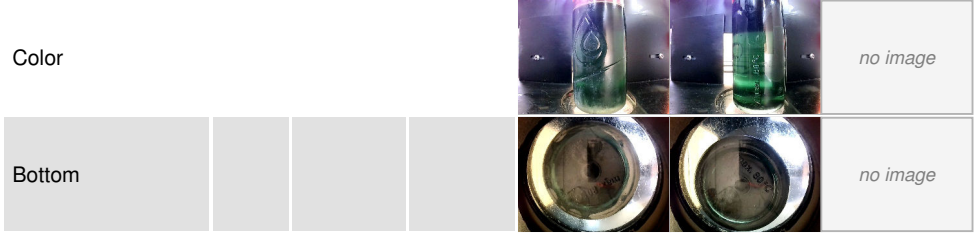
OIL ANALYSIS REPORT



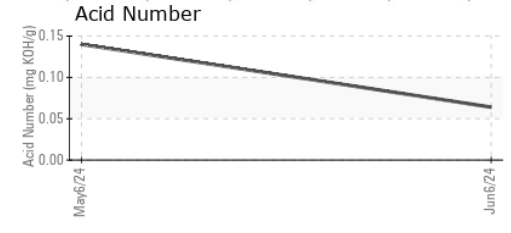
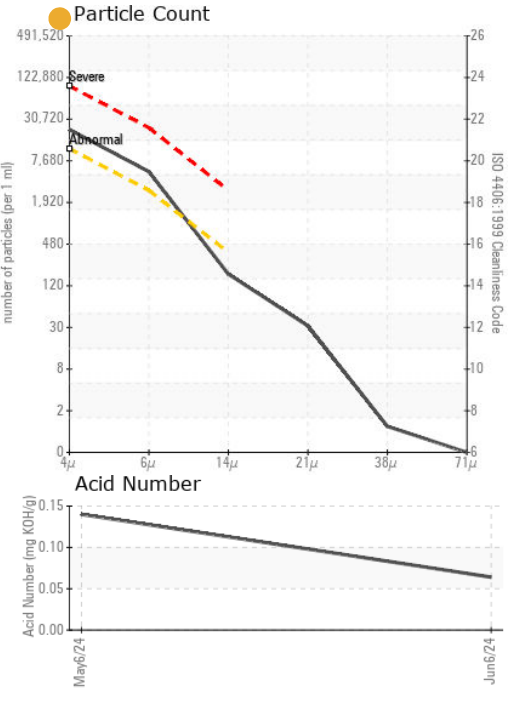
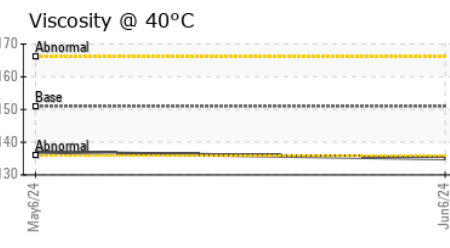
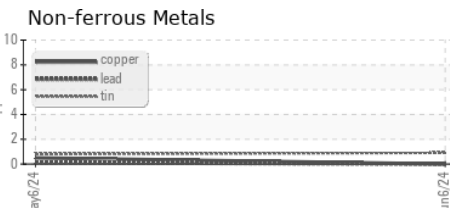
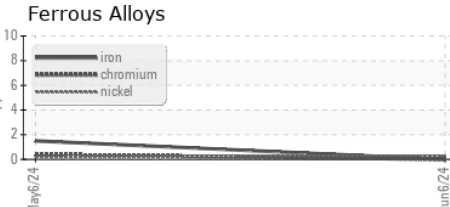
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- |
| Silt | scalar | *Visual | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | NONE | LIGHT |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- |
| Odor | scalar | *Visual | NORML | NORML | --- |
| Emulsified Water | scalar | *Visual | >2.26 | NEG | --- |
| Free Water | scalar | *Visual | | NEG | --- |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|----------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 151 | 137 | --- |
| Visc @ 100°C | cSt | ASTM D445 | 28 | 25.3 | --- |
| Viscosity Index (VI) | Scale | ASTM D2270 | 224 | 220 | --- |

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO90004079 **Received** : 20 Jun 2024
Lab Number : 06216307 **Tested** : 24 Jun 2024
Unique Number : 11089171 **Diagnosed** : 24 Jun 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, VI)

CIMARRON ENERGY - CARLSBAD
 4425 GRANDI RD, UNIT F
 CARLSBAD, NM
 UM 88220-8923
 Contact: CARLOS LEAL
 cleal@cimarron.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)