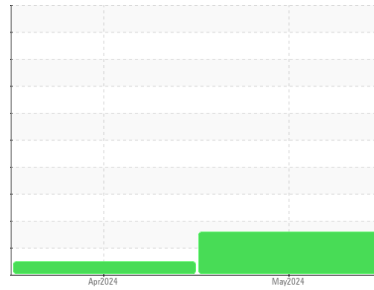


OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
NK 112609 (S/N SC235682)
 Component
Compressor
 Fluid
CIMARRON HB-150 (--- GAL)

DIAGNOSIS

- Recommendation**
 We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. Please note that this is a corrected copy.
- Wear**
 All component wear rates are normal.
- Contamination**
 There is a high amount of particulates present in the oil.
- Fluid Condition**
 The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION method limit/base current history1 history2

| | | | | | |
|---------------|-------------|-------------|--------------------|-------------|-----|
| Sample Number | Client Info | | TO90004166 | TO90004022 | --- |
| Sample Date | Client Info | | 07 May 2024 | 04 Apr 2024 | --- |
| Machine Age | hrs | Client Info | 0 | 0 | --- |
| Oil Age | hrs | Client Info | 0 | 0 | --- |
| Oil Changed | | Client Info | N/A | Changed | --- |
| Sample Status | | | ABNORMAL | NORMAL | --- |

WEAR METALS method limit/base current history1 history2

| | | | | | | |
|----------|-----|-------------|-----|--------------|----|-----|
| Iron | ppm | ASTM D5185m | >50 | 9 | <1 | --- |
| Chromium | ppm | ASTM D5185m | >10 | <1 | 0 | --- |
| Nickel | ppm | ASTM D5185m | | <1 | 0 | --- |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | --- |
| Silver | ppm | ASTM D5185m | | 0 | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >25 | 2 | 2 | --- |
| Lead | ppm | ASTM D5185m | >25 | <1 | 0 | --- |
| Copper | ppm | ASTM D5185m | >50 | <1 | <1 | --- |
| Tin | ppm | ASTM D5185m | >15 | <1 | <1 | --- |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | --- |
| Cadmium | ppm | ASTM D5185m | | <1 | 0 | --- |

ADDITIVES method limit/base current history1 history2

| | | | | | | |
|------------|-----|-------------|---|--------------|-----|-----|
| Boron | ppm | ASTM D5185m | 0 | 0 | 0 | --- |
| Barium | ppm | ASTM D5185m | 0 | 1 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | 0 | <1 | 0 | --- |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | --- |
| Magnesium | ppm | ASTM D5185m | 0 | <1 | <1 | --- |
| Calcium | ppm | ASTM D5185m | 0 | 7 | 5 | --- |
| Phosphorus | ppm | ASTM D5185m | 0 | 34 | 14 | --- |
| Zinc | ppm | ASTM D5185m | 0 | 3 | 3 | --- |
| Sulfur | ppm | ASTM D5185m | 0 | 111 | 139 | --- |

CONTAMINANTS method limit/base current history1 history2

| | | | | | | |
|-----------|-----|-------------|--------|--------------|-------|-----|
| Silicon | ppm | ASTM D5185m | >25 | 1 | 0 | --- |
| Sodium | ppm | ASTM D5185m | | 2 | 4 | --- |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 2 | --- |
| Water | % | ASTM D6304 | >2.26 | 1.38 | 0.771 | --- |
| ppm Water | ppm | ASTM D6304 | >22600 | 13800 | 7715 | --- |

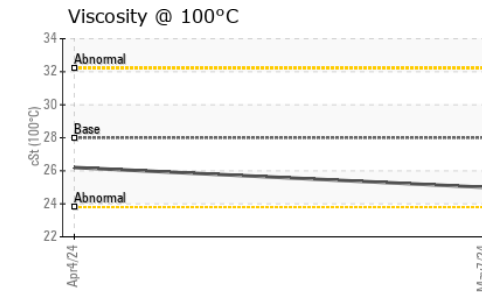
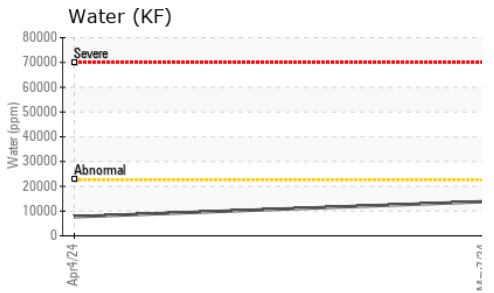
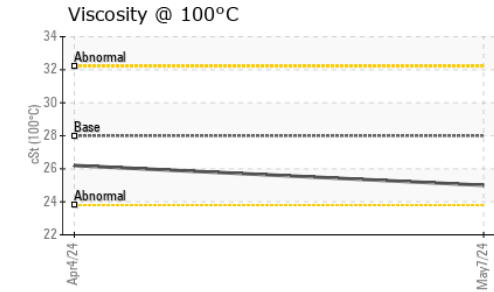
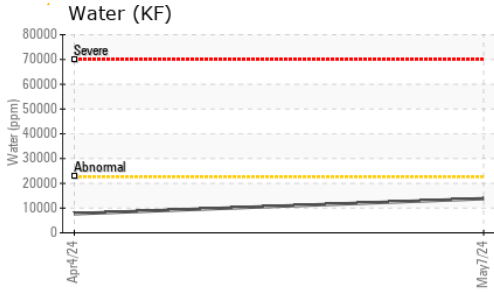
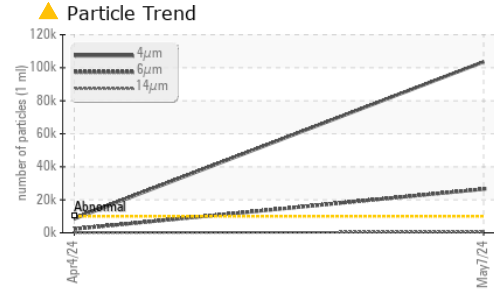
FLUID CLEANLINESS method limit/base current history1 history2

| | | | | | | |
|-----------------|--|--------------|-----------|-------------------|----------|-----|
| Particles >4µm | | ASTM D7647 | >10000 | ▲ 103580 | 8540 | --- |
| Particles >6µm | | ASTM D7647 | >2500 | ▲ 26517 | 2320 | --- |
| Particles >14µm | | ASTM D7647 | >320 | ▲ 471 | 134 | --- |
| Particles >21µm | | ASTM D7647 | >80 | 37 | 23 | --- |
| Particles >38µm | | ASTM D7647 | >20 | 1 | 1 | --- |
| Particles >71µm | | ASTM D7647 | >4 | 0 | 0 | --- |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/15 | ▲ 24/22/16 | 20/18/14 | --- |

FLUID DEGRADATION method limit/base current history1 history2

| | | | | | | |
|------------------|----------|------------|--|--------------|------|-----|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.077 | 0.19 | --- |
|------------------|----------|------------|--|--------------|------|-----|

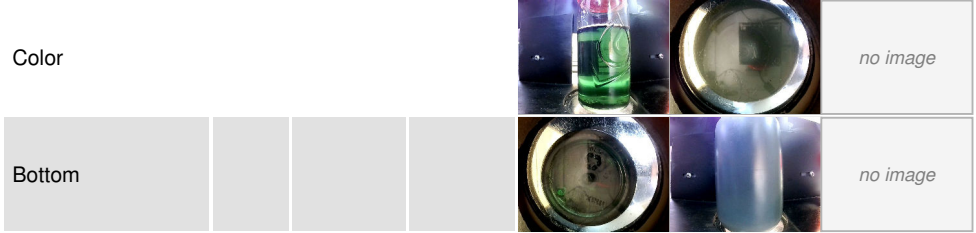
OIL ANALYSIS REPORT



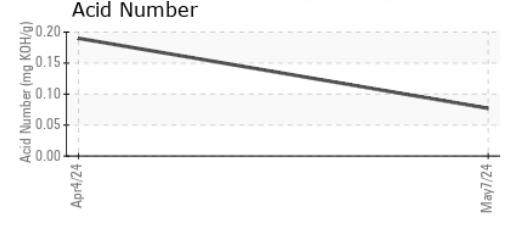
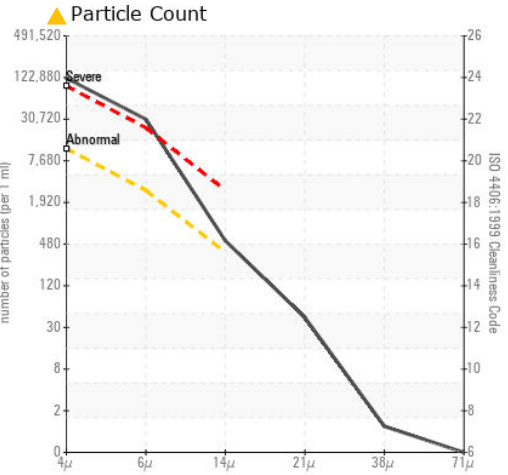
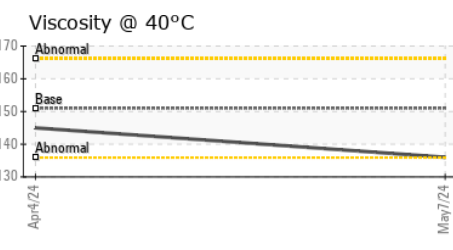
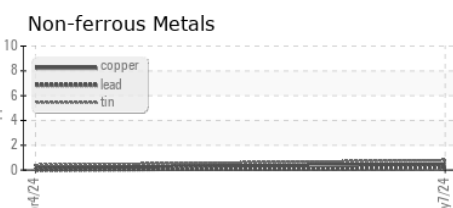
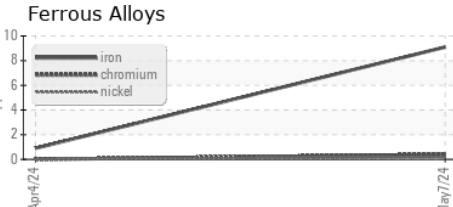
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- |
| Silt | scalar | *Visual | NONE | LIGHT | --- |
| 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 | >2.26 | NEG | --- |
| Free Water | scalar | *Visual | | NEG | --- |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|----------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 151 | 136 | 145 |
| Visc @ 100°C | cSt | ASTM D445 | 28 | 25.0 | 26.2 |
| Viscosity Index (VI) | Scale | ASTM D2270 | 224 | 218 | 217 |

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



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO90004166 **Received** : 13 May 2024
Lab Number : 06177746 **Tested** : 14 Jun 2024
Unique Number : 11023799 **Diagnosed** : 14 Jun 2024 - Doug Bogart
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)

T:
F: