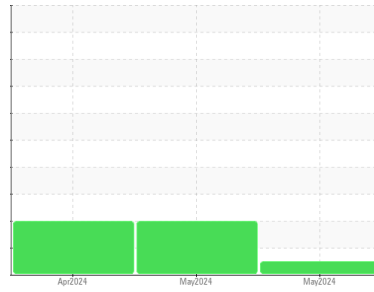


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
LEROI 112816 (S/N SC260231)
 Component
Compressor
 Fluid
CIMARRON HB-150 (--- GAL)

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 | | | TO90004075 | TO90004231 | TO90003974 |
| Sample Date | Client Info | | | 24 May 2024 | 01 May 2024 | 16 Apr 2024 |
| Machine Age | hrs Client Info | | | 0 | 0 | 0 |
| Oil Age | hrs Client Info | | | 0 | 0 | 0 |
| Oil Changed | Client Info | | | Changed | N/A | N/A |
| Sample Status | | | | NORMAL | ABNORMAL | ABNORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >70 | 1 | 2 | 3 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >3 | <1 | 2 | 2 |
| Lead | ppm | ASTM D5185m | >4 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m | >20 | 0 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >3 | 2 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Cadmium | ppm | ASTM D5185m | | <1 | <1 | <1 |

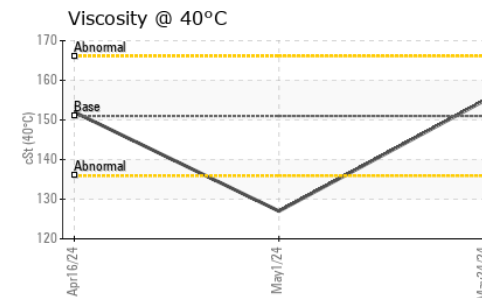
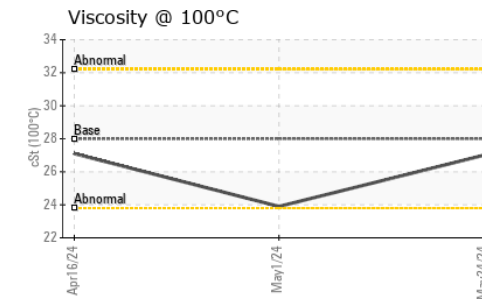
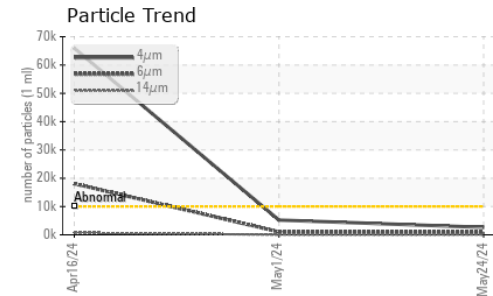
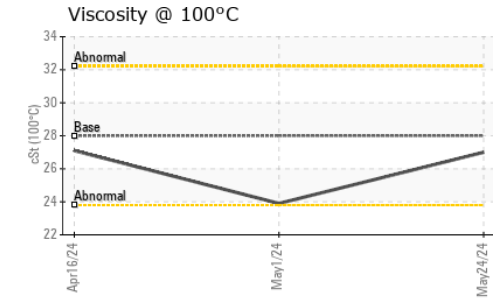
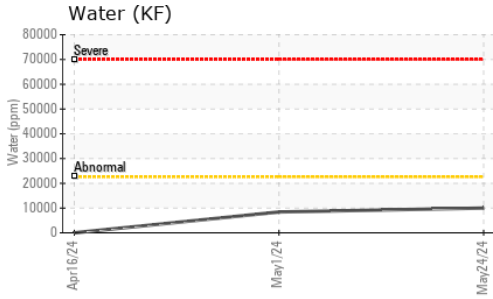
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 0 | 7 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 0 | <1 | 1 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | <1 | <1 |
| Manganese | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | 0 | 2 | <1 | <1 |
| Calcium | ppm | ASTM D5185m | 0 | 6 | 4 | 4 |
| Phosphorus | ppm | ASTM D5185m | 0 | 29 | 73 | 19 |
| Zinc | ppm | ASTM D5185m | 0 | 11 | 4 | <1 |
| Sulfur | ppm | ASTM D5185m | 0 | 642 | 436 | 37 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >45 | <1 | 4 | 10 |
| Sodium | ppm | ASTM D5185m | | 4 | 1 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | 5 | 2 | 2 |
| Water | % | ASTM D6304 | >2.26 | 1.00 | ▲ 0.841 | 0.00 |
| ppm Water | ppm | ASTM D6304 | >22600 | 10000 | ▲ 8410 | 0 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|------------|
| Particles >4µm | | ASTM D7647 | >10000 | 2635 | 5219 | ▲ 65926 |
| Particles >6µm | | ASTM D7647 | >2500 | 844 | 1031 | ▲ 18062 |
| Particles >14µm | | ASTM D7647 | >320 | 45 | 24 | ▲ 709 |
| Particles >21µm | | ASTM D7647 | >80 | 5 | 6 | ▲ 109 |
| Particles >38µm | | ASTM D7647 | >20 | 1 | 3 | 3 |
| Particles >71µm | | ASTM D7647 | >4 | 0 | 3 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/15 | 19/17/13 | 20/17/12 | ▲ 23/21/17 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|--------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.261 | 0.28 | 0.067 |

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 | >2.26 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|----------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 151 | 154.8 | 127 |
| Visc @ 100°C | cSt | ASTM D445 | 28 | 27.00 | 23.9 |
| Viscosity Index (VI) | Scale | ASTM D2270 | 224 | 212 | 221 |

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

| GRAPHS | |
|--------|--|
| | |
| | |
| | |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO90004075
Lab Number : 06205570
Unique Number : 11073031
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: