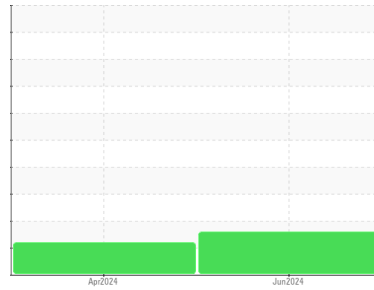


OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
VRUOXY0045 - LP2
 Component
Compressor
 Fluid
CIMARRON HB-150 (--- GAL)

DIAGNOSIS

Recommendation
 Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear
 All component wear rates are normal.

Contamination
 There is a high concentration of water present 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 acceptable for the time in service.

SAMPLE INFORMATION method limit/base current history1 history2

Sample Number	Client Info		TO90004518	TO90004026	---
Sample Date	Client Info		17 Jun 2024	29 Apr 2024	---
Machine Age	hrs	Client Info	0	0	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		Changed	N/A	---
Sample Status			ABNORMAL	ABNORMAL	---

WEAR METALS method limit/base current history1 history2

Iron	ppm	ASTM D5185m	>50	3	3	---
Chromium	ppm	ASTM D5185m	>10	<1	0	---
Nickel	ppm	ASTM D5185m		0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>25	2	1	---
Lead	ppm	ASTM D5185m	>25	0	<1	---
Copper	ppm	ASTM D5185m	>50	0	2	---
Tin	ppm	ASTM D5185m	>15	0	1	---
Vanadium	ppm	ASTM D5185m		0	0	---
Cadmium	ppm	ASTM D5185m		0	0	---

ADDITIVES method limit/base current history1 history2

Boron	ppm	ASTM D5185m	0	<1	0	---
Barium	ppm	ASTM D5185m	0	0	0	---
Molybdenum	ppm	ASTM D5185m	0	0	<1	---
Manganese	ppm	ASTM D5185m		0	<1	---
Magnesium	ppm	ASTM D5185m	0	<1	0	---
Calcium	ppm	ASTM D5185m	0	0	0	---
Phosphorus	ppm	ASTM D5185m	0	0	20	---
Zinc	ppm	ASTM D5185m	0	0	2	---
Sulfur	ppm	ASTM D5185m	0	147	481	---

CONTAMINANTS method limit/base current history1 history2

Silicon	ppm	ASTM D5185m	>25	0	4	---
Sodium	ppm	ASTM D5185m		4	5	---
Potassium	ppm	ASTM D5185m	>20	<1	3	---
Water	%	ASTM D6304	>2.26	▲ 2.47	0.460	---
ppm Water	ppm	ASTM D6304	>22600	▲ 24700	4600	---

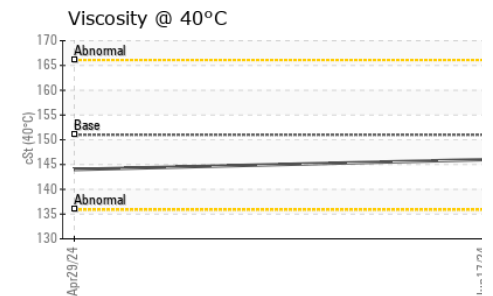
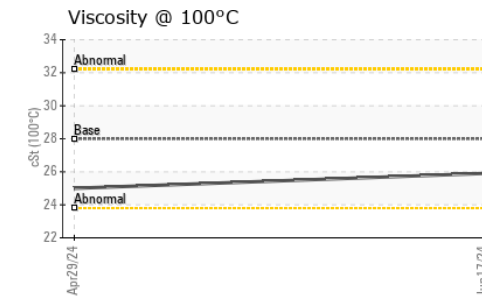
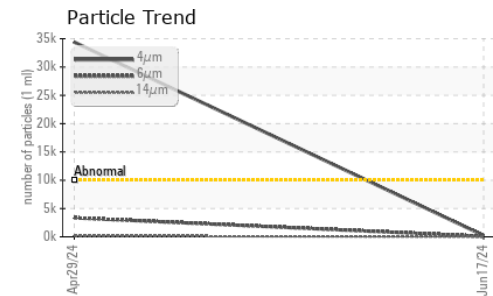
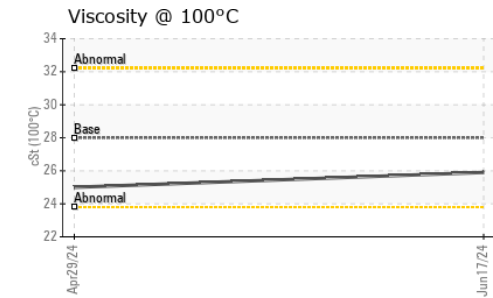
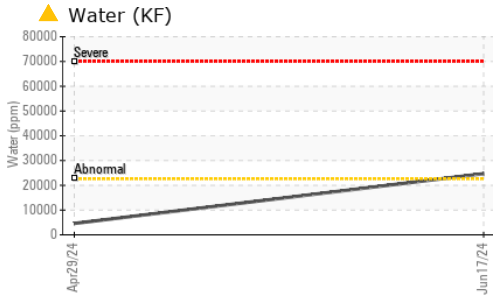
FLUID CLEANLINESS method limit/base current history1 history2

Particles >4µm	ASTM D7647	>10000	235	▲ 34392	---
Particles >6µm	ASTM D7647	>2500	78	▲ 3349	---
Particles >14µm	ASTM D7647	>320	8	149	---
Particles >21µm	ASTM D7647	>80	2	29	---
Particles >38µm	ASTM D7647	>20	0	0	---
Particles >71µm	ASTM D7647	>4	0	0	---
Oil Cleanliness	ISO 4406 (c)	>20/18/15	15/13/10	▲ 22/19/14	---

FLUID DEGRADATION method limit/base current history1 history2

Acid Number (AN)	mg KOH/g	ASTM D8045		0.047	0.24	---
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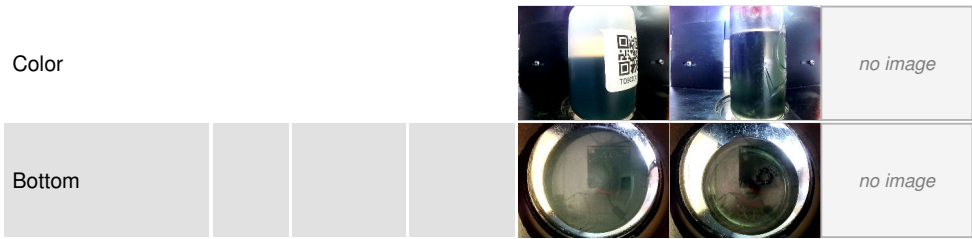
OIL ANALYSIS REPORT



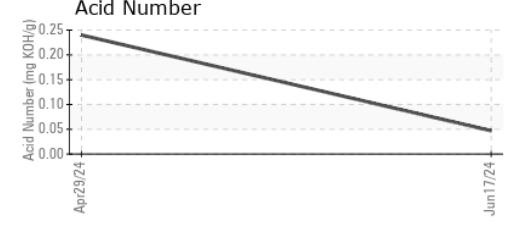
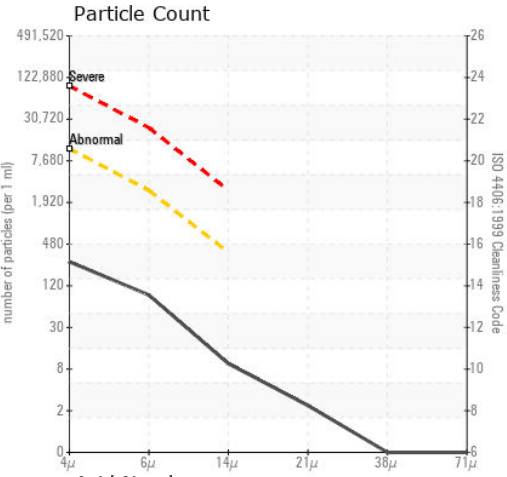
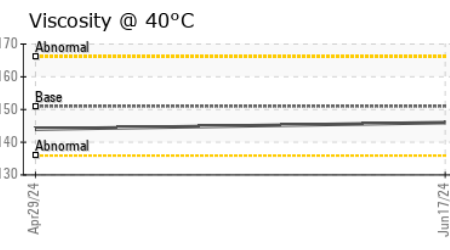
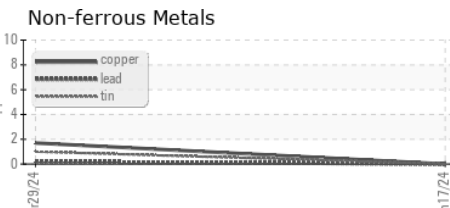
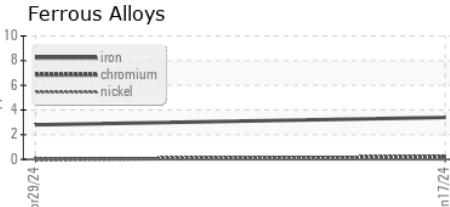
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	146	144
Visc @ 100°C	cSt	ASTM D445	28	25.9	25.0
Viscosity Index (VI)	Scale	ASTM D2270	224	213	208

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO90004518 **Received** : 26 Jun 2024
Lab Number : 06221301 **Tested** : 27 Jun 2024
Unique Number : 11099498 **Diagnosed** : 28 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)