

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

LEROI VRUOXY0014 - HP4 (S/N LE19446)

Compressor

Fluid CIMARRON HB-150 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Fluid Condition

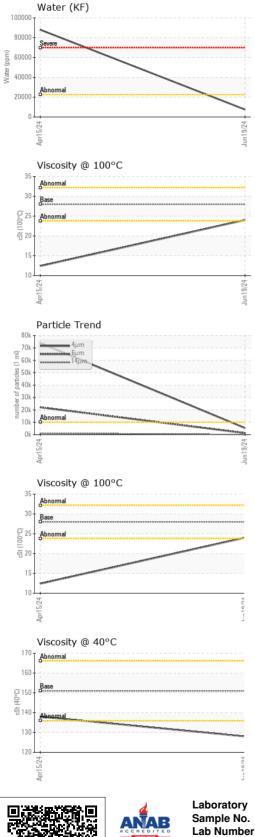
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sample Number Client Info TO90004147 TO90003971 Sample Date Client Info 19 Jun 2024 15 Apr 2024 Oil Age hrs Client Info 0 0 Oil Age hrs Client Info N/A N/A N/A Sample Status Client Info N/A N/A N/A WEAR METALS Method ImitNos Curent history WEAR METALS Method ImitNos 0 Nickel ppm ASTM 05165n 1 1 Nickel ppm ASTM 05165n 2-5 -1 6 Silver ppm ASTM 05165n 2-5 -1 6 Cadmium ppm ASTM 05165n 2-5 -1 6 Cadmum ppm ASTM 05165n 2-5 -1 1 Cadmum ppm ASTM 05165n 1 1 Cadmum ppm A	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0 0 Oil Age irrs Client Info N/A N/A N/A Sample Status Imit/base current history1 history2 Iron ppm ASTM D5185m >50 0 6 Nickel ppm ASTM D5185m >10 0 <11 Tranium ppm ASTM D5185m <1 0 <11 Nickel ppm ASTM D5185m <25 <1 6 Silver ppm ASTM D5185m >25 0 0 Copper ppm ASTM D5185m >50 0 <11 Cadmium ppm ASTM D5185m 0 <11 ASTM D5185m 0 0 <11 ASTM D5185m 0 <11 Manadanees ppm ASTM D5185m 0 </th <th>Sample Number</th> <th></th> <th>Client Info</th> <th></th> <th>TO90004147</th> <th>TO90003971</th> <th></th>	Sample Number		Client Info		TO90004147	TO90003971	
Oil Age hrs Client Info 0 0 Oil Changed Client Info N/A N/A N/A WEAR METALS method imit/base current history1 history2 Iron ppm ASTM D5165m >50 0 6 Nickel ppm ASTM D5165m 0 <1 Nickel ppm ASTM D5165m 0 <1 Aluminum ppm ASTM D5165m >25 0 0 Auminum ppm ASTM D5165m >25 0 0 Auminum ppm ASTM D5165m >50 0 <1 Auminum ppm ASTM D5165m >50 0 <1 Auminum ppm ASTM D5165m 0 <1 Aumadium ppm ASTM D5165m 0 0 <1	Sample Date		Client Info		19 Jun 2024	15 Apr 2024	
Oil Changed Sample Status Client Info N/A N/A	Machine Age	hrs	Client Info		0	0	
Sample Status method imit/base current history1 history2 Iron ppm ASTM D5185m >50 0 6 Nickel ppm ASTM D5185m >10 0 <1 Nickel ppm ASTM D5185m <1 1 Tatanium ppm ASTM D5185m <1 0 <1 Silver ppm ASTM D5185m >25 <1 6 Aluminum ppm ASTM D5185m >50 0 <1 Copper ppm ASTM D5185m >50 0 <1 Cadmium ppm ASTM D5185m >50 0 <1 ADDITIVES method imit/base current history1 history2 Boron ppm ASTM D5185m 0 0 <1 Magnaese ppm ASTM D5185m 0 2 <1 </th <th>Oil Age</th> <th>hrs</th> <th>Client Info</th> <th></th> <th>0</th> <th>0</th> <th></th>	Oil Age	hrs	Client Info		0	0	
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Chromium ppm ASTM D5185m >10 0 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m <1 1 Titanium ppm ASTM D5185m 0 0 Silver ppm ASTM D5185m 25 <1	Iron	ppm	ASTM D5185m	>50	0	6	
Titanium ppm ASTM D5185m 0 <1 Silver ppm ASTM D5185m 0 0 Aluminum ppm ASTM D5185m >25 <1	Chromium	ppm	ASTM D5185m	>10	0	<1	
Silver ppm ASTM D5185m 0 0 Aluminum ppm ASTM D5185m >25 <1	Nickel	ppm	ASTM D5185m		<1	1	
Aluminum ppm ASTM D5185m >25 <1 6 Lead ppm ASTM D5185m >25 0 0 Copper ppm ASTM D5185m >50 0 <1	Titanium	ppm	ASTM D5185m		0	<1	
Lead ppm ASTM D5185m >25 0 0 Copper ppm ASTM D5185m >50 0 <1	Silver	ppm	ASTM D5185m		0	0	
Copper ppm ASTM D5185m >50 0 <1 Tin ppm ASTM D5185m >15 1 1 Vanadium ppm ASTM D5185m 0 <1	Aluminum	ppm	ASTM D5185m	>25	<1	6	
Copper ppm ASTM D5185m >50 0 <1 Tin ppm ASTM D5185m >15 1 1 Vanadium ppm ASTM D5185m 0 <1	Lead		ASTM D5185m	>25	0	0	
Tin ppm ASTM D5185m<>1.5 1 1 Vanadium ppm ASTM D5185m 0 <1	Copper		ASTM D5185m	>50	0	<1	
Vanadium ppm ASTM D5185m 0 <1					1		
Cadmium ppm ASTM D5185m 0 <1	Vanadium		ASTM D5185m		0	<1	
Boron ppm ASTM D5185m 0 0 25 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 2 <1 Magnesium ppm ASTM D5185m 0 2 <1 Calcium ppm ASTM D5185m 0 4 Calcium ppm ASTM D5185m 0 7 13 Zinc ppm ASTM D5185m 0 49 0 Sulfur ppm ASTM D5185m 0 49 0 Sulfur ppm ASTM D5185m >25 <1 5 Sulfur ppm ASTM D5185m >20 5 2 Vater % ASTM D5185m >20 5316	Cadmium				0	<1	
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Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 <1	Boron	ppm	ASTM D5185m	0	0	25	
Molybdenum ppm ASTM D5185m 0 0 <1 Manganese ppm ASTM D5185m 0 2 <1	Barium		ASTM D5185m	0		0	
Manganese ppm ASTM D5185m <1 0 Magnesium ppm ASTM D5185m 0 2 <1				0	0	<1	
Magnesium ppm ASTM D5185m 0 2 <1 Calcium ppm ASTM D5185m 0 0 4 Phosphorus ppm ASTM D5185m 0 7 13 Zinc ppm ASTM D5185m 0 4 2 Sulfur ppm ASTM D5185m 0 49 0 Sulfur ppm ASTM D5185m 0 49 0 Solicon ppm ASTM D5185m >25 <1					<1	0	
Calcium ppm ASTM D5185m 0 0 4 Phosphorus ppm ASTM D5185m 0 7 13 Zinc ppm ASTM D5185m 0 4 2 Sulfur ppm ASTM D5185m 0 49 0 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1	-			0		<1	
Phosphorus ppm ASTM D5185m 0 7 13 Zinc ppm ASTM D5185m 0 4 2 Sulfur ppm ASTM D5185m 0 49 0 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1 5 Sodium ppm ASTM D5185m >25 <1 5 Sodium ppm ASTM D5185m >20 5 2 Vater % ASTM D6304 >2.26 0.756 ▲ 8.810 ppm Water ppm ASTM D6304 >2.2600 7560 ▲ 88102 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 5316 73943 Particles >14µm ASTM D7647 >200 4	-		ASTM D5185m	0	0	4	
Zinc ppm ASTM D5185m 0 4 2 Sulfur ppm ASTM D5185m 0 49 0 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 <1 5 Sodium ppm ASTM D5185m >20 5 2 Potassium ppm ASTM D5185m >20 5 2 Water % ASTM D5185m >20 5 2 Water % ASTM D6304 >2.260 0.7560 & 8.810 ppm Water ppm ASTM D7647 >10000 5316 73943 Particles >4µm ASTM D7647 >10000 5316 73943 Particles >14µm ASTM D7647 >200 1224 22086 Particles >21µm ASTM D7647 20 0						13	
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Silicon ppm ASTM D5185m >25 <1					49		
Sodium ppm ASTM D5185m 2 9 Potassium ppm ASTM D5185m >20 5 2 Water % ASTM D6304 >2.26 0.756 & 8.810 ppm Water ppm ASTM D6304 >22600 7560 & 88102 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 5316 ^73943 Particles >6µm ASTM D7647 >2500 1224 22086 Particles >6µm ASTM D7647 >320 53 1117 Particles >14µm ASTM D7647 >80 9 192 Particles >21µm ASTM D7647 >20 0 4 Particles >71µm ASTM D7647 >4 0 0 Oil Cleanliness ISO 4406 (c) >20/18/15 20/17/13 23/22/17	CONTAMINANTS	;	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 5 2 Water % ASTM D6304 >2.26 0.756 & 8.810 ppm Water ppm ASTM D6304 >2.2600 7560 & 88102 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 5316 A 73943 Particles >6µm ASTM D7647 >2500 1224 A 22086 Particles >6µm ASTM D7647 >320 53 1117 Particles >14µm ASTM D7647 >80 9 192 Particles >21µm ASTM D7647 >20 0 4 Particles >71µm ASTM D7647 >4 0 0 Gli Cleanliness ISO 4406 (c) >20/18/15 20/17/13 23/22/17 FLUID DEGRADATION method limit/base current history1 history2	Silicon	ppm	ASTM D5185m	>25	<1	5	
Water % ASTM D6304 >2.26 0.756 ▲ 8.810 ppm Water ppm ASTM D6304 >22600 7560 ▲ 88102 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >10000 5316 ▲ 73943 Particles >6µm ASTM D7647 >2500 1224 ▲ 22086 Particles >6µm ASTM D7647 >320 53 ▲ 1117 Particles >14µm ASTM D7647 >80 9 ▲ 192 Particles >21µm ASTM D7647 >20 0 4 Particles >38µm ASTM D7647 >20 0 4 Particles >71µm ASTM D7647 >4 0 0 Oil Cleanliness ISO 4406 (c) >20/18/15 20/17/13 ▲ 23/22/17 FLUID DEGRADATION method limit/base current history1 history2	Sodium	ppm	ASTM D5185m		2	9	
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Particles >6μm ASTM D7647 >2500 1224 ▲ 22086 Particles >14μm ASTM D7647 >320 53 ▲ 1117 Particles >21μm ASTM D7647 >80 9 ▲ 192 Particles >21μm ASTM D7647 >20 0 4 Particles >38μm ASTM D7647 >20 0 4 Particles >71μm ASTM D7647 >4 0 0 Oil Cleanliness ISO 4406 (c) >20/18/15 20/17/13 ▲ 23/22/17 FLUID DEGRADATION method limit/base current history1 history2	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >320 53 ▲ 1117 Particles >21μm ASTM D7647 >80 9 ▲ 192 Particles >38μm ASTM D7647 >20 0 4 Particles >71μm ASTM D7647 >4 0 0 Oil Cleanliness ISO 4406 (c) >20/18/15 20/17/13 ▲ 23/22/17 FLUID DEGRADATION method limit/base current history1 history2	Particles >4µm		ASTM D7647	>10000	5316	A 73943	
Particles >21 μm ASTM D7647 >80 9 192 Particles >38μm ASTM D7647 >20 0 4 Particles >38μm ASTM D7647 >20 0 4 Particles >71μm ASTM D7647 >4 0 0 Oil Cleanliness ISO 4406 (c) >20/18/15 20/17/13 ≥3/22/17 FLUID DEGRADATION method limit/base current history1 history2	Particles >6µm		ASTM D7647	>2500	1224	<u> </u>	
Particles >38μm ASTM D7647 >20 0 4 Particles >71μm ASTM D7647 >4 0 0 Oil Cleanliness ISO 4406 (c) >20/18/15 20/17/13 23/22/17 FLUID DEGRADATION method limit/base current history1 history2	Particles >14µm		ASTM D7647	>320	53	🔺 1117	
Particles >71μm ASTM D7647 >4 0 0 Oil Cleanliness ISO 4406 (c) >20/18/15 20/17/13 ▲ 23/22/17 FLUID DEGRADATION method limit/base current history1 history2	Particles >21µm		ASTM D7647	>80	9	<u> </u>	
Oil Cleanliness ISO 4406 (c) >20/18/15 20/17/13 ▲ 23/22/17 FLUID DEGRADATION method limit/base current history1 history2	Particles >38µm		ASTM D7647	>20	0	4	
FLUID DEGRADATION method limit/base current history1 history2	Particles >71µm		ASTM D7647	>4	0	0	
	Oil Cleanliness		ISO 4406 (c)	>20/18/15	20/17/13	▲ 23/22/17	
Acid Number (AN) mg KOH/g ASTM D8045 0.063 0.17	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045		0.063	0.17	

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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	LIGHT	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
)/24	Appearance	scalar	*Visual	NORML	NORML	NORML	
Jun 19/24	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>2.26	NEG	NEG	
	Free Water	scalar	*Visual	22.20	NEG	NEG	
				Part la cara			
	FLUID PROPERT		method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D445	151	128	138	
	Visc @ 100°C	cSt	ASTM D445	28	24.0	12.4	
	Viscosity Index (VI)	Scale	ASTM D2270	224	220	75	
24	SAMPLE IMAGES	3	method	limit/base	current	history1	history2
Jun19/24	Color						no image
	Bottom						no image
19.24	Ferrous Alloys	s		491,520 122,880 30,720 100 1 100 100 1 100 100	Abnormal		-24 -24 -22 -20 -18 -16 -14
i10.01	Viscosity @ 40°C			Jun19/24	³ - 2- 4μ 6μ Acid Number	14µ 21µ	-12 -10 -8
Ac. 0	Abcornal 100 Base Abcornal 120 42 42 42 42 42 42 42 42 42 42			Jun 19,24	Apr15/24		
-		1 Madiso	on Ave Carv	, NC 27513	CIMAI	RON ENERGY	- CARLSBA

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