

# **OIL ANALYSIS REPORT**

Sample Rating Trend

NORMAL

Machine Id VAC CON 450 Component Hydraulic System Fluid {not provided} (--- QTS)

#### DIAGNOSIS

## Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

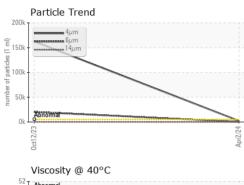
### Fluid Condition

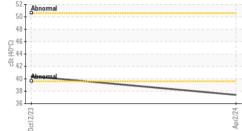
The condition of the oil is acceptable for the time in service.

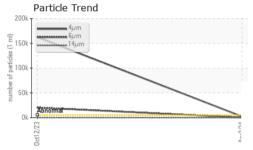
SAMPLE INFORM	/IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PTK0004535	PTK0004144	
Sample Date		Client Info		02 Apr 2024	12 Oct 2023	
Machine Age	hrs	Client Info		3341	3271	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				NORMAL	SEVERE	
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<1	16	
Chromium	ppm	ASTM D5185m	>10	<1	0	
Nickel	ppm	ASTM D5185m	>10	0	0	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m		0	0	
Aluminum	ppm	ASTM D5185m	>10	2	0	
Lead	ppm	ASTM D5185m	>10	<1	0	
Copper	ppm	ASTM D5185m	>75	2	11	
Tin	ppm	ASTM D5185m	>10	<1	0	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		<1	0	
ADDITIVES		ام م مالم ممر			In the transmission	In the terms of
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	iimit/base	o current	nistory i 0	nistory2
	ppm ppm		iimii/base			
Boron		ASTM D5185m	limi/base	0	0	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	0 0	0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 0 <1	0 0 0	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 <1 0	0 0 0 1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	IIMI/Dase	0 0 <1 0 20	0 0 1 0	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 <1 0 20 54	0 0 1 0 55	  
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 <1 0 20 54 303	0 0 1 0 55 277	   
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 <1 0 20 54 303 363	0 0 1 0 55 277 368	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 <1 0 20 54 303 363 1097	0 0 1 0 55 277 368 1713	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 <1 0 20 54 303 363 1097 current	0 0 1 55 277 368 1713 history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 <1 0 20 54 303 363 1097 current 2	0 0 1 0 55 277 368 1713 history1 2	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	limit/base >20	0 0 <1 0 20 54 303 363 1097 current 2 0	0 0 0 1 0 55 277 368 1713 history1 2 2	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >20 >20	0 0 <1 0 20 54 303 363 1097 current 2 0 1	0 0 0 1 55 277 368 1713 history1 2 2 2 0	     history2  
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >20 >20 limit/base	0 0 <1 0 20 54 303 363 1097 current 2 0 1 current	0 0 0 1 0 55 277 368 1713 history1 2 2 0 0 history1	     history2   history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >20 >20 limit/base >5000	0 0 <1 0 20 54 303 363 1097 <i>current</i> 2 0 1 <i>current</i> 2281	0 0 0 1 55 277 368 1713 history1 2 2 2 0 history1 162515	     history2  history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >20 >20 limit/base >5000 >1300 >160	0 0 <1 0 20 54 303 363 1097 current 2 0 1 current 2281 203	0 0 0 1 55 277 368 1713 history1 2 2 2 2 0 history1 ▲ 162515 ▲ 162515	     history2   history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >20 >20 limit/base >5000 >1300 >160	0 0 <1 0 20 54 303 363 1097 <i>current</i> 2 0 1 2 0 1 <i>current</i> 2281 203 26	0 0 0 1 55 277 368 1713	     history2   history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >20 >20 >20 limit/base >5000 >1300 >160 >40 >10	0 0 <1 0 20 54 303 363 1097 current 2 0 1 current 2281 203 26 7	0 0 0 1 55 277 368 1713	     history2  history2  history2



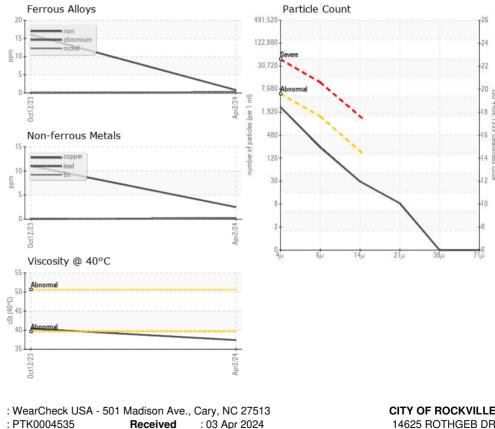
# **OIL ANALYSIS REPORT**







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	>0.1	NEG	NEG	
Free Water	scalar	*Visual		NEG	NEG	
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		37.4	40.4	
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color				no image		no image
Bottom				no image		no image
GRAPHS						
Ferrous Alloys				Particle Cou	nt	
iron 1			491,52	<sup>10</sup> T		T <sup>26</sup>
5 - chromium			122,88	10 -		-24
0-			30,72	Severe		
5-			30,72			-22
			7,68	0 Abnormal		-20
0ct12/23			Apr2/24 per 1 m		S	-18
00			Ar les (pe		•	10
Non-ferrous Metals	5		pitred 48			-16
copper			Apr2/24 86 16 17 10 10 10 10 10 10 10 10 10 10 10 10 10			-18 -16 -14
- tin						
			3	10 -		-12
j <b>-</b>				8-		-10
				2		
0ct12/23			pr2/	2-		, T°
			4	04µ 6µ	14µ 21µ	38µ 71µ
Viscosity @ 40°C				.2203 (703)	positifi Mathematica	1000 (100) (1000 (1000 (1000 (100) (100) (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (1000 (100) (
Abnormal						
5-						
5 L						
0ct12/23			Apr2/24			
OCt			Ap			
VearCheck USA - 501 Madison Ave., Cary, NC 27513 TK0004535 <b>Received</b> : 03 Apr 2024 6138194 <b>Tested</b> : 10 Apr 2024 0963002 <b>Diagnosed</b> : 10 Apr 2024 - Wes Davis LEET (Additional Tests: PrtCount)					CITY OF ROCKVILLE 14625 ROTHGEB DF ROCKVILLE, MI US 2085( Contact: ADAM HOLLANDEF	



Laboratory Sample No. Lab Number **Unique Number** Test Package : FLEET ( Additional Tests: PrtCount ) Contact: ADAM HOLLANDER Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. ahollander@rockvillemd.gov \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (240)314-8488 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

Report Id: CITROCPTK [WUSCAR] 06138194 (Generated: 04/10/2024 11:40:07) Rev: 2

Contact/Location: ADAM HOLLANDER - CITROCPTK

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