

# **OIL ANALYSIS REPORT**

### Sample Rating Trend

# Sample nating frent

NORMAL



# **CUMMINS/ONAN SUTTON MANOR PS**

Component

**Diesel Engine** 

**DIESEL ENGINE OIL SAE 15W40 (3 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

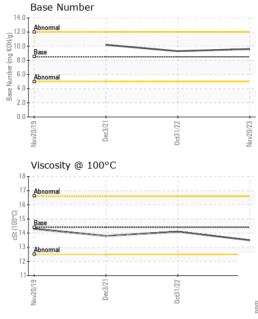
### **Fluid Condition**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

		Nov201	9 Dec2021	0ct2022 N	ov2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0878330	WC0748984	WC0612341
Sample Date		Client Info		20 Nov 2023	31 Oct 2022	03 Dec 2021
Machine Age	hrs	Client Info		0	335	327
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	١	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	0	1	1
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	1	1	<1
Lead	ppm	ASTM D5185m	>40	<1	<1	1
Copper	ppm	ASTM D5185m	>330	0	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Antimony	ppm	ASTM D5185m				<1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	7	49	14
Barium	ppm	ASTM D5185m	10	0	0	1
Molybdenum	ppm	ASTM D5185m	100	61	68	51
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	950	484	791
Calcium	ppm	ASTM D5185m	3000	1133	1525	1021
Phosphorus	ppm	ASTM D5185m	1150	1038	967	915
Zinc	ppm	ASTM D5185m	1350	1276	1156	1121
Sulfur	ppm	ASTM D5185m	4250	3258	3988	2871
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	4	6	4
Sodium	ppm	ASTM D5185m	>158	0	1	<1
Potassium	ppm	ASTM D5185m	>20	<1	0	<1
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	4.9	6.5	4.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.7	18.4	18.2
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.5	13.5	13.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.6	9.3	10.2
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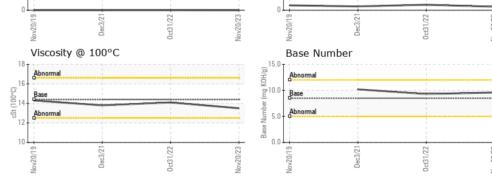


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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TIFS	method	limit/base	current	history1	history2
T LOID T NOTEN	ILO	method			HISTOLAL	HISTOLYZ

Visc @ 100°C	cSt	ASTM D445	14.4	13.5	14.1	13.8	
GRAPHS							
Iron (ppm)				Lead (ppm)	)		
200 Severe				Severe			
E 150 - Abnormal				60 Abnormal			
1.1		***************************************		40 + 0	***************************************		
50				20			
Nov20/19 -		0ct31/22 -	Nov20/23	Nov20/19	Dec3/21.	0ct31/22 ·	Nov20/23
Aluminum (ppm)	)	Ü	Z	Chromium	(ppm)	5	Z
Severe				Severe			
30 Abnomal				Abnormal			
				Abnormal			
10				10			
Nov20/19-		0ct31/22 -	Nov20/23	Nov20/19	Dec3/21-	0ct31/22 -	Nov20/23
Z		ŏ	S			ő	8
Copper (ppm)  Severe				Silicon (ppr			
Annomal							







Laboratory Sample No. Lab Number **Unique Number** 

: WC0878330 : 06013758 : 10752902

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 21 Nov 2023 Diagnosed : 22 Nov 2023

Diagnostician : Wes Davis

Test Package : MOB 1 (Additional Tests: TBN) 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) **GEN TECH LTD** 3017 RT 9W

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