

## **OIL ANALYSIS REPORT**

### Machine Id **Dutchess county highway division 2102358**

Diesel Engine

DIESEL ENGINE OIL SAE 15W40 (9 GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

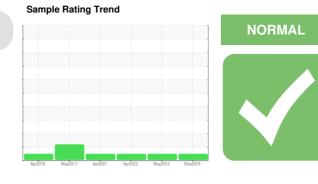
All component wear rates are normal.

#### 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.

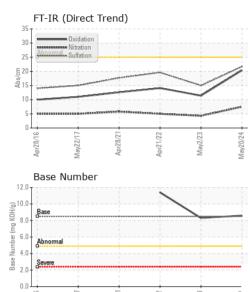


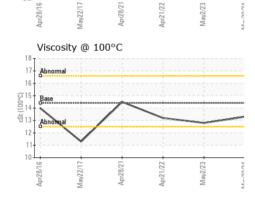
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0921625	WC0799951	WC0651515
Sample Date		Client Info		20 May 2024	02 May 2023	21 Apr 2022
Machine Age	hrs	Client Info		0	0	273
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	٧	method	limit/base	current	history1	history2
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>51	3	1	1
Chromium	ppm	ASTM D5185m	>11	<1	<1	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	<1
Aluminum	ppm	ASTM D5185m	>31	2	<1	<1
Lead	ppm	ASTM D5185m	>26	<1	0	<1
Copper	ppm	ASTM D5185m	>26	<1	<1	<1
Tin	ppm	ASTM D5185m	>4	<1	0	0
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	15	14	5
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	52	52	57
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	450	752	735	882
Calcium	ppm	ASTM D5185m	3000	1189	1400	1065
Phosphorus	ppm	ASTM D5185m	1150	1092	1081	1044
Zinc	ppm	ASTM D5185m	1350	1156	1305	1219
Sulfur	ppm	ASTM D5185m	4250	3468	4126	2694
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>22	4	2	3
Sodium	ppm	ASTM D5185m	>158	2	<1	0
Potassium	ppm	ASTM D5185m	>20	2	<1	1
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.3	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.5	4.3	5.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.7	15.0	19.6
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.4	11.4	14.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.6	8.3	11.4
	0 0			0		

Contact/Location: JOE SAYEGH - GENNEW

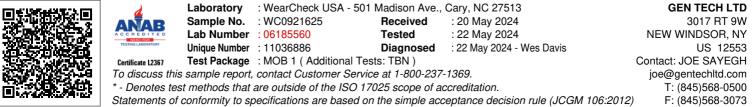


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VISUAL		method	limit/base	current	hist	ory1	histo	ry2
White Metal	scalar	*Visual	NONE	NONE	NON	E	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NON	NONE NONE		
Precipitate	scalar	*Visual	NONE	NONE	NON	E	NONE	
Silt	scalar	*Visual	NONE	NONE	NON	E	NONE	
Debris	scalar	*Visual	NONE	NONE	NON	E	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NON	E	NONE	
Appearance	scalar	*Visual	NORML	NORML	NOR	ML	NORML	
Odor	scalar	*Visual	NORML	NORML	NOR	ML	NORML	
Emulsified Water	scalar	*Visual	>0.21	NEG	NEG		NEG	
Free Water	scalar	*Visual		NEG	NEG		NEG	
FLUID PROPERTI	ES	method	limit/base	current	hist	ory1	histo	ry2
Visc @ 100°C	cSt	ASTM D445	14.4	13.3	12.8		13.2	
GRAPHS								
Iron (ppm)			10	Lead (ppm)				
Severe			8	Severe				
			F 60	)				
			4					
Abnormal			2	Abnormal				
								_
Apr28/16 May22/17 Apr28/21	Apr21/22	May2/23 -	May20/24	Apr28/16 May22/17	Apr28/21	Apr21/22 -	May2/23	Mau20/74
Apri May	Apr	Ma	May	Apri May	Apı	Apr	Ma	Man
Aluminum (ppm)				Chromium (p	pm)			
Severe		1	2	Severe	 I I		I	
i i i			2	) <b>-</b>				
Abnormal			11 E	Abnormal				
/16	/22	/23 -		910	3/21-	/22	/23 .	74
Apr28/16 May22/17 Apr28/21	Apr21/22	May2/23	May20/24	Apr28/16 May22/17	Apr28/21	Apr21/22	May2/23	Mav20/74
Copper (ppm)			2	Silicon (ppm)				2
T			40					
Severe				Severe				
				Abnormal				
			톱 21					
Abnormal			10	)				
8	~	57				2-		
Apr28/16 - May22/17 - Apr28/21 -	Apr21/22	May2/23	May20/24	Apr28/16 May22/17	Apr28/21	Apr21/22	May2/23	Mau20/74
	Ap	M	Mar			Ap	W	M
Viscosity @ 100°C			12.0	Base Number	-			
Abnormal			(B) 10.0			>		
Base			Q B	Base				
Base Abnorgal				0				
Abnowgal			(B)H10.1 HOX But) a 6.1 WW 4.1 But 3 R 2.1	Severe			·	
· · ·			2.0 	)		1	1	
3/16	.722 -	1/23 -			8/21-	122	2/23 -	174
Apr28/16 May22/17 Apr28/21	Apr21/22	May2/23	May20/24	Apr28/16 May22/17	Apr28/21	Apr21/22 -	May2/23	Mav20/74



Report Id: GENNEW [WUSCAR] 06185560 (Generated: 05/22/2024 05:55:06) Rev: 1

Contact/Location: JOE SAYEGH - GENNEW