

OIL ANALYSIS REPORT

Sample Rating Trend





Machine Id G1 Component Diesel Engine

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

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

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.

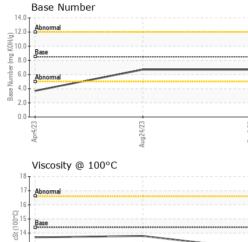
AE 15W40 (0	iAL)	Ap	2023	Aug2023 Dec20	123	
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0874368	WC0783980	WC0783996
Sample Date		Client Info		09 Dec 2023	24 Aug 2023	04 Apr 2023
Machine Age	hrs	Client Info		10237	9667	8989
Dil Age	hrs	Client Info		569	332	579
Dil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	Ν	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<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
ron	ppm	ASTM D5185m	>120	12	12	32
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	<1
Fitanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	2	1	6
₋ead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	2	<1	2
īin	ppm	ASTM D5185m	>15	1	<1	<1
/anadium	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	8	18	14
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	62	75	80
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	846	446	87
Calcium	ppm	ASTM D5185m	3000	1203	1864	2152
Phosphorus	ppm	ASTM D5185m	1150	1026	1021	925
Zinc	ppm	ASTM D5185m	1350	1194	1280	1190
Sulfur	ppm	ASTM D5185m	4250	2659	3861	3470
CONTAMINANTS	3	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	9	4	8
Sodium	ppm	ASTM D5185m	>158	8	5	4
Potassium	ppm	ASTM D5185m	>20	<1	2	4
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>4	0.7	0.5	1.3
Nitration	Abs/cm	*ASTM D7624	>20	9.1	8.2	11.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	20.0	27.0
FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
• • • •	Abo/ 1mm	*ASTM D7414	>25	45 4	- 4 4	107
Oxidation Base Number (BN)	Abs/.1mm mg KOH/g	ASTM D7414 ASTM D2896	>20	15.1 6.7	14.4 6.7	19.7 3.7



13 Abnormal 12 11 Apr4/23 -

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VISUAL



Vhite Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual	NONE NONE NONE	NONE NONE NONE NONE	NONE NONE NONE	NONE NONE NONE
Precipitate Silt Debris Sand/Dirt	scalar scalar scalar	*Visual *Visual	NONE NONE	NONE	NONE	NONE
Silt Debris Sand/Dirt	scalar scalar scalar	*Visual	NONE			
Silt Debris Sand/Dirt	scalar scalar		NONE		NONE	
Debris Sand/Dirt	scalar					NONE
Sand/Dirt			NONE	NONE	NONE	NONE
		*Visual	NONE	NONE	NONE	NONE
appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Ddor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water		*Visual			NEG	
	scalar		>0.2	NEG		NEG
		visuai		NEG		NEG
	IES	method	limit/base	current		history2
/isc @ 100°C	cSt	ASTM D445	14.4	12.9	13.8	13.7
Ferrous Alloys						
iron						
new chromium						
	<hr/>					
4/23	4/23 .		9/23 .			
Apr	Aug2		Dec			
Non-ferrous Metals	;					
[]						
copper						
ananananan tin						
•						
57	2000 C	And and the second descendence				
\pr4/2	g24/2		lec9/2			
	Au					
Viscosity @ 100°C				Base Number		
			14.0			
Abnormal			12.0-	Abnormal		
1			الله الله الله الله الله الله الله ال	Base	1	
Base			Ē 8.0-	Dase		
			Ê 6.0-	Abarana		
Ab				Adholma		
Apr4/23	Aug24/23 -		L 0.0	Apr4/23 -	Aug24/23 -	
2				₹ ¹	24	
	ree Water FLUID PROPERTI Fisc @ 100°C GRAPHS Ferrous Alloys from ium nickel Non-ferrous Metals	ree Water scalar FLUID PROPERTIES Fisc @ 100°C cSt GRAPHS Ferrous Alloys Non-ferrous Metals Copper Lead tin Copper Lea	ree Water scalar *Visual FLUID PROPERTIES method isc @ 100°C cSt ASTM D445 GRAPHS Ferrous Alloys Mon-ferrous Metals Copper lead tin Cop	ree Water scalar *Visual FLUID PROPERTIES method limit/base isc @ 100°C cSt ASTM D445 14.4 GRAPHS Ferrous Alloys Communication Communication Compared Non-ferrous Metals Compared Viscosity @ 100°C Communication Communication Compared Communication Compared Communication Comm	ree Water scalar *Visual NEG FLUID PROPERTIES method imit/base current isc @ 100°C cSt ASTM D445 14.4 12.9 GRAPHS Ferrous Alloys Mon-ferrous Metals Copper Uiscosity @ 100°C Copper C	ree Water scalar *Visual NEG NEG FLUID PROPERTIES method limit/base current history1 fisc @ 100°C cSt ASTM D445 14.4 12.9 13.8 GRAPHS Ferrous Alloys Ferrous Alloys Ferrous Alloys Ferrous Metals Image: State of the

Contact/Location: Service Manager - AVWEHT