

OIL ANALYSIS REPORT

Area [450273761] AFT FIRE PUMP B (S/N SAMPLE TAG #81020584)

Component Diesel Engine

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

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

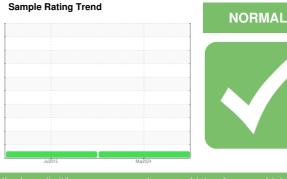
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

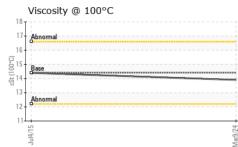




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SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC	PC	
Sample Date		Client Info		09 Mar 2024	04 Jul 2015	
Machine Age	hrs	Client Info		0	0	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	٧	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	4	25	
Chromium	ppm		>20	0	1	
Nickel	ppm	ASTM D5185(m)	>4	0	<1	
Titanium	ppm	ASTM D5185(m)		0	1	
Silver	ppm	ASTM D5185(m)	>3	0	<1	
Aluminum	ppm	. /	>20	<1	2	
Lead	ppm	ASTM D5185(m)	>40	1	14	
Copper	ppm	17	>330	12	261	
Tin	ppm	ASTM D5185(m)	>15	0	3	
Antimony	ppm	ASTM D5185(m)		0	2	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	<1	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	<1	2	
Barium	ppm	ASTM D5185(m)	10	0	<1	
Molybdenum	ppm	ASTM D5185(m)	100	54	2	
Manganese	ppm	ASTM D5185(m)	100	0	2	
Magnesium	ppm	ASTM D5185(m)	450	908	55	
Calcium	ppm	ASTM D5185(m)	3000	972	2245	
Phosphorus	ppm	ASTM D5185(m)	1150	936	934	
Zinc	ppm	()	1350	1079	1145	
Sulfur	ppm	ASTM D5185(m)	4250	2386	3270	
Lithium	ppm	ASTM D5185(m)	4200	<1	<1	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	2	8	
Sodium	ppm	ASTM D5185(m)	>158	2	6	
Potassium	ppm	ASTM D5185(m)	>20	<1	2	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0	0	
Nitration	Abs/cm	ASTM D7624*	>20	5.0	8.5	
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.0	21.3	



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FLUID DEGRADATION >25 Oxidation ASTM D7414* 13.9 19.1 Abs/.1mm VISUAL **Emulsified Water** Visual* >0.2 NEG NEG scalar Free Water NEG Visual* NEG scalar FLUID PROPERTIES Mar9/24 -Visc @ 100°C cSt 14.4 13.9 14.4 ASTM D7279(m) GRAPHS Iron (ppm) Lead (ppm) 250 100 200 81 100 50 20 Aar9/74 Chromium (ppm) Aluminum (ppm) 50 50 41 л 30 30 10 10 0 ٥. Aar9/74 Copper (ppm) Silicon (ppm) 400 8 Se 350 70 300 60 50 250 la 200 E 40 150 30 Ab 100 20 50 10 0 Viscosity @ 100°C Soot % 18 6.0 5.0 16 4.0 cSt (100°C) ≈ ₫3.0 Abnormal 1.0 12 0.0 Mar9/24 lul4/ Suncor - Terra Nova Projects Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Sample No. : WC Received :01 Apr 2024 Scotia Centre, 235 Water Strret Lab Number : 02625643 : 01 Apr 2024 St. John`s, NL Tested Unique Number : 5750762 : 01 Apr 2024 - Kevin Marson CA A1C 1B6 Diagnosed Test Package : MOB 1 Contact: Josh Hynes To discuss this sample report, contact Customer Service at 1-800-268-2131. joshynes@suncor.com T: (709)778-3575

Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

Contact/Location: Josh Hynes - TERHAM

F: (709)724-2835

CALA

ISO 17025:2017 Accredited Laboratory