WEAR CONTAMINATION **FLUID CONDITION** **NORMAL NORMAL NORMAL**

GROVE 7269 (S/N 69343)

Diesel Engine

DIESEL ENGINE OIL SAF 15W40 (--- OTS)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		DC0032003	DC0025383	
	Sample Date		Client Info		02 Feb 2024	18 Jan 2023	
	Machine Age	hrs	Client Info		516	492	
	Oil Age	hrs	Client Info		0	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>100	<1	2	
	Chromium	ppm	ASTM D5185m		<1	<1	
Metal levels are typical for a new component breaking in.	Nickel	ppm	ASTM D5185m		0	0	
	Titanium	ppm	ASTM D5185m		<1	<1	
	Silver	ppm	ASTM D5185m	>3	0	0	
	Aluminum	ppm	ASTM D5185m		1	1	
	Lead	ppm	ASTM D5185m		1	<1	
	Copper	ppm	ASTM D5185m		<1	<1	
	Tin	ppm	ASTM D5185m	>15	0	0	
	Vanadium	ppm	ASTM D5185m		0	<1	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTABBINATION	0		AOTM DE LOE	0.5	40		
CONTAMINATION	Silicon	ppm	ASTM D5185m		10	6	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		2	5	
	Fuel		WC Method		<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol	0/	WC Method	. 2	NEG 0.1	NEG 0.1	
	Soot % Nitration	% Abs/cm	*ASTM D7844 *ASTM D7624	>3	0.1 5.5	0.1 5.5	
	Sulfation	Abs/.1mm	*ASTM D7024		15.7	19.0	
	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		*Visual	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m		2	2	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m		11	160	
	Barium	ppm	ASTM D5185m		0	0	
	Molybdenum	ppm	ASTM D5185m	100	3	17	
	Manganese	ppm	ASTM D5185m	4=0	<1	<1	
	Magnesium	ppm	ASTM D5185m		40	68	
	Calcium	ppm	ASTM D5185m		2206	2022	
	Phosphorus	ppm	ASTM D5185m		929	909	
	Zinc	ppm		1350	1073	1141	
	Sulfur	ppm Aba/1mm	ASTM D5185m		3893	3665	
	Oxidation	Abs/.1mm	*ASTM D7414		10.0	14.4	
	Base Number (BN)	0 0	ASTM D2896		8.0	8.8	
	Visc @ 100°C	cSt	ASTM D445	14.4	13.7	13.6	







Laboratory Sample No.

Lab Number : 06099010 Unique Number : 10897240 Test Package : MOB 1 (Additional Tests: TBN)

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : DC0032003

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Received **Tested** Diagnosed

: 23 Feb 2024 : 26 Feb 2024

: 26 Feb 2024 - Wes Davis

US 21005 Contact: TONY DAVIS tdavis@vacraneworks.com T: (410)688-1725

6721 RARITON AVENUE

ABERDEEN, MD

ABERDEEN PROVING GROUND

* - 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)

Contact/Location: TONY DAVIS - CRAABEMD