

## Machine Id INTERNATIONAL 125060-SWV6517 Component Diesel Engine Fluid MOBIL DELVAC ELITE 15W40 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.	Sample Number		Client Info		GFL0111326	GFL0111261	GFL0111351
	Sample Date		Client Info		31 May 2024	04 Apr 2024	25 Jan 2024
	Machine Age	hrs	Client Info		21445	20945	20395
	Oil Age	hrs	Client Info		500	550	500
	Filter Age	hrs	Client Info		0	0	500
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	18	38	9
	Chromium	ppm	ASTM D5185m	>20	<1	1	<1
All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>4	0	<1	0
	Titanium	ppm	ASTM D5185m		0	<1	<1
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	7	<b>1</b> 5	5
	Lead	ppm	ASTM D5185m	>40	<1	<1	0
	Copper	ppm	ASTM D5185m	>330	2	2	<1
	Tin	ppm	ASTM D5185m	>15	0	<1	0
	Vanadium	ppm	ASTM D5185m		0	<1	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m		5	8	5
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.	Potassium	ppm	ASTM D5185m		5	14	1
	Fuel	%	ASTM D3524	>2.0	<b>A</b> 3.6	<b>3</b> .8	<b>3</b> .7
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844		0.4	0.5	0.2
	Nitration	Abs/cm	*ASTM D7624	>20	11.4	11.7	9.9
	Sulfation	Abs/.1mm	*ASTM D7415		19.7	20.8	17.7
	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	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		5	1	2
The BN result indicates that there is suitable alkalinity remaining in the	Boron	ppm	ASTM D5185m		40	51	105
oil. The oil is no longer serviceable due to the presence of contaminants.	Barium	ppm	ASTM D5185m		0	0	1
	Molybdenum	ppm	ASTM D5185m		125	139	117
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m		669	685	608
	Calcium	ppm	ASTM D5185m		1256	1280	1111
	Phosphorus	ppm	ASTM D5185m		787	722	662
	Zinc	ppm	ASTM D5185m		867	856	752
	Sulfur	ppm	ASTM D5185m		3850	3186	2839

Oxidation

Visc @ 100°C cSt

20.0

5.4

12.4

15.7

6.4

12.4

17.8

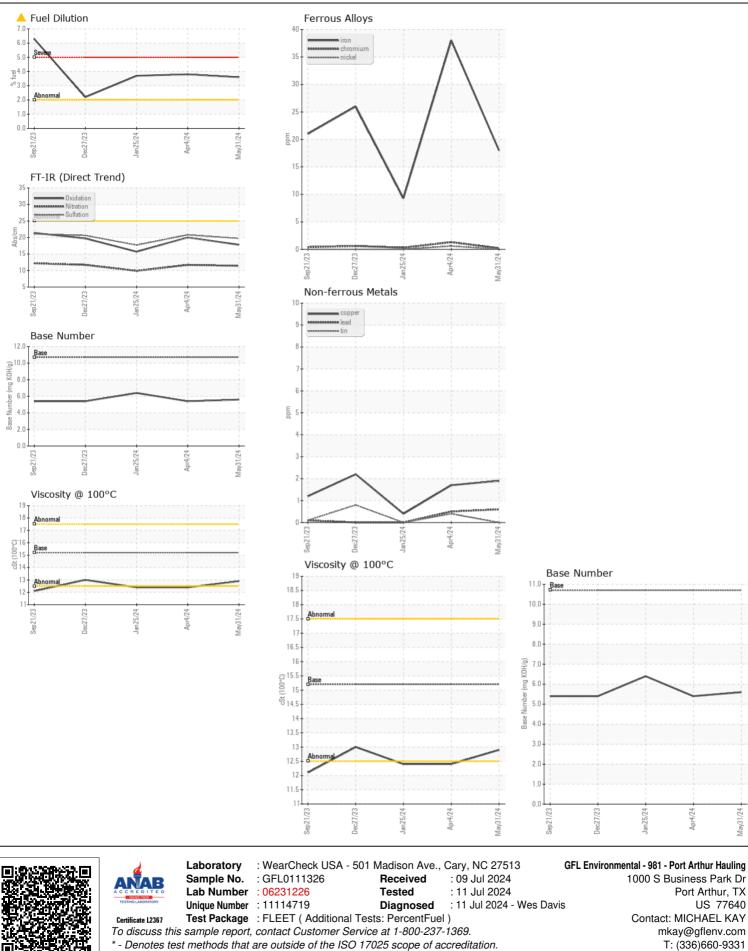
5.6

12.9

Abs/.1mm \*ASTM D7414 >25

ASTM D445 15.2

Base Number (BN) mg KOH/g ASTM D2896 10.7



<sup>\* -</sup> 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)

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