

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

Machine Id **58808** Component **Diesel Engine** Fluid **CHEVRON 15W40 (--- QTS)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Number		Client Info		WC0908148	WC0881505	WC0839322
	Sample Date		Client Info		02 May 2024	15 Dec 2023	10 Aug 2023
	Machine Age	mls	Client Info		405429	357052	0
	Oil Age	mls	Client Info		48377	25000	25000
	Filter Age	mls	Client Info		48377	25000	25000
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>100	33	22	21
	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
	Nickel	ppm	ASTM D5185m	>4	0	0	0
	Titanium	ppm	ASTM D5185m		0	0	<1
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	7	4	4
	Lead	ppm	ASTM D5185m	>40	<1	0	0
	Copper	ppm	ASTM D5185m	>330	5	10	8
	Tin	ppm	ASTM D5185m	>15	1	<1	0
	Vanadium	ppm	ASTM D5185m		0	0	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	<u>\</u> 25	8	7	5
CONTAMINATION	Potassium	ppm	ASTM D5185m	-	2	2	3
There is no indication of any contamination in the oil.	Fuel	ррпі	WC Method		<1.0	<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method	20.L	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	1.1	0.4	0.8
	Nitration	Abs/cm	*ASTM D7624	>20	10.2	8.2	9.4
	Sulfation	Abs/.1mm	*ASTM D7415		25.9	20.4	21.6
	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	NORML
	Emulsified Water		*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium		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	>50	2 85	<1 6	0
	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm ppm	ASTM D5185m		98	66	64
	Manganese	ppm	ASTM D5185m			<1	<1
	Magnesium	ppm	ASTM D5185m		612	1098	1006
	Calcium	ppm	ASTM D5185m		1545	1208	1175
	Phosphorus	ppm	ASTM D5185m		1044	1111	974
	Zinc	ppm	ASTM D5185m		1225	1378	1262
	Sulfur	ppm	ASTM D5185m		3128	2874	3097
	Oxidation		*ASTM D310311	>25	22.4	16.4	18.4
	Ondation	100/.111111		~	22.7	10.4	10.4

Base Number (BN) mg KOH/g ASTM D2896

ASTM D445 14.4

Visc @ 100°C cSt

5.5

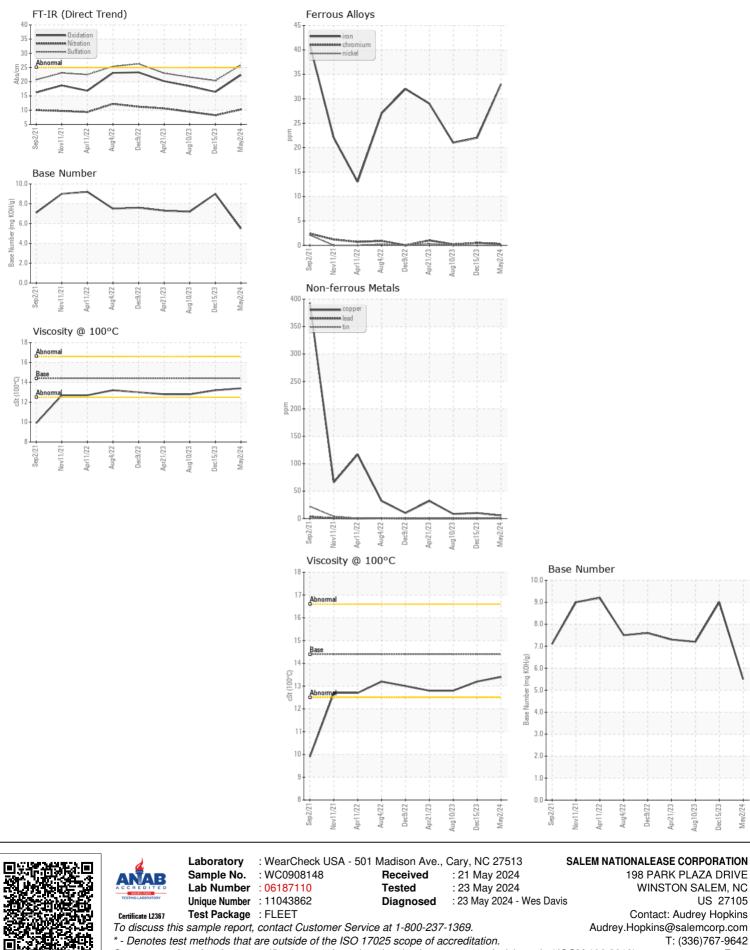
13.4

9.0

13.2

7.2

12.8



* - 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: Audrey Hopkins - SALWIN Page 2 of 2

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