FLEET LUBE 360™ OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Area
(YA152758) GFL035
Machine Id
12069
Component
Diesel Engine
Fluid
CHEVRON DELO 400 LE 15W40 (32 QTS)

RECOMMENDATION

We advise that you check the fuel injection system. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

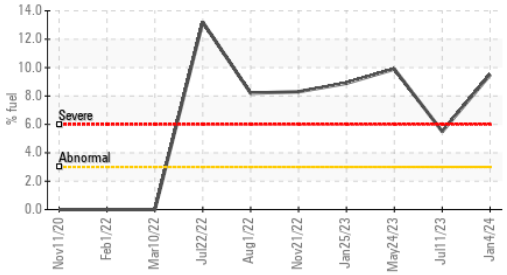
There is a high amount of fuel present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

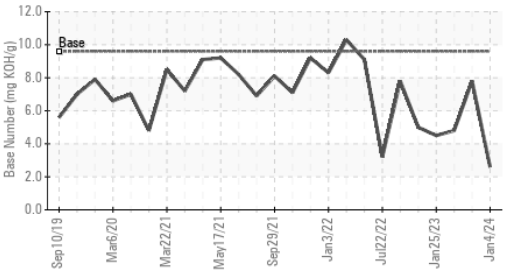
Fuel is present in the oil and is lowering the viscosity. The BN level is low.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**GFL0102311**	GFL0071572	GFL0071598
Sample Date		Client Info		**04 Jan 2024**	11 Jul 2023	24 May 2023
Machine Age	hrs	Client Info		**8469**	8469	8469
Oil Age	hrs	Client Info		**600**	600	600
Filter Age	hrs	Client Info		**600**	600	600
Oil Changed		Client Info		**Changed**	Changed	Changed
Filter Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**SEVERE**	ABNORMAL	SEVERE
Iron	ppm	ASTM D5185m	>90	**68**	22	54
Chromium	ppm	ASTM D5185m	>20	**3**	<1	2
Nickel	ppm	ASTM D5185m	>2	**<1**	1	3
Titanium	ppm	ASTM D5185m	>2	**<1**	0	<1
Silver	ppm	ASTM D5185m	>2	**0**	0	<1
Aluminum	ppm	ASTM D5185m	>20	▲ **10**	4	7
Lead	ppm	ASTM D5185m	>40	**<1**	0	<1
Copper	ppm	ASTM D5185m	>330	**1**	1	2
Tin	ppm	ASTM D5185m	>15	**<1**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	▲ **25**	8	12
Potassium	ppm	ASTM D5185m	>20	**6**	4	7
Fuel	%	ASTM D3524	>3.0	⬢ **9.5**	▲ 5.5	⬢ 9.9
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG
Soot %	%	*ASTM D7844	>6	**0.8**	0.4	0.7
Nitration	Abs/cm	*ASTM D7624	>20	**15.6**	10.0	13.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	**27.9**	20.4	26.6
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	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Sodium	ppm	ASTM D5185m		**41**	22	40
Boron	ppm	ASTM D5185m		**4**	3	5
Barium	ppm	ASTM D5185m		**0**	<1	0
Molybdenum	ppm	ASTM D5185m		**54**	63	61
Manganese	ppm	ASTM D5185m		**<1**	<1	1
Magnesium	ppm	ASTM D5185m		**814**	982	910
Calcium	ppm	ASTM D5185m		**916**	1124	1108
Phosphorus	ppm	ASTM D5185m	1200	**908**	1090	942
Zinc	ppm	ASTM D5185m	1300	**1071**	1344	1230
Sulfur	ppm	ASTM D5185m	3200	**2291**	3790	3172
Oxidation	Abs/.1mm	*ASTM D7414	>25	**30.7**	17.2	25.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	▲ **2.6**	7.8	4.8
Visc @ 100°C	cSt	ASTM D445	15.7	▲ **11.9**	13.0	▲ 12.0

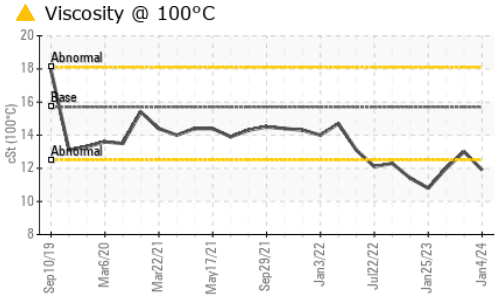
Fuel Dilution



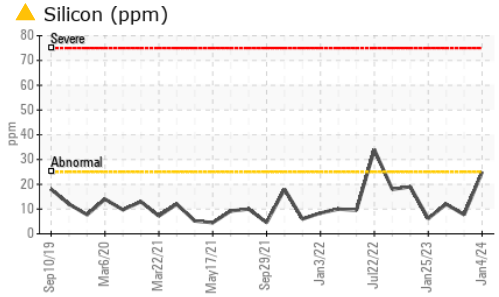
Base Number



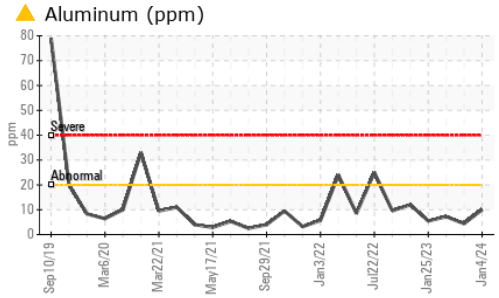
Viscosity @ 100°C



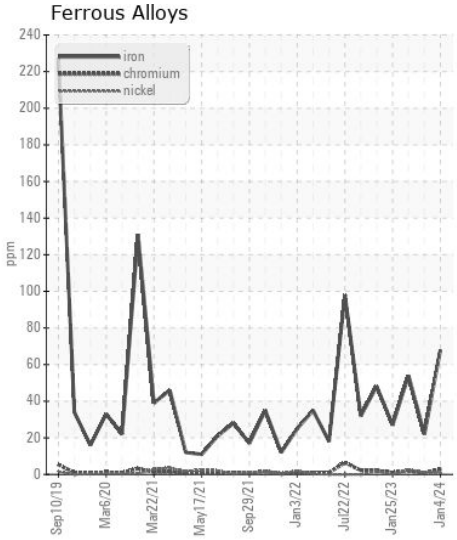
Silicon (ppm)



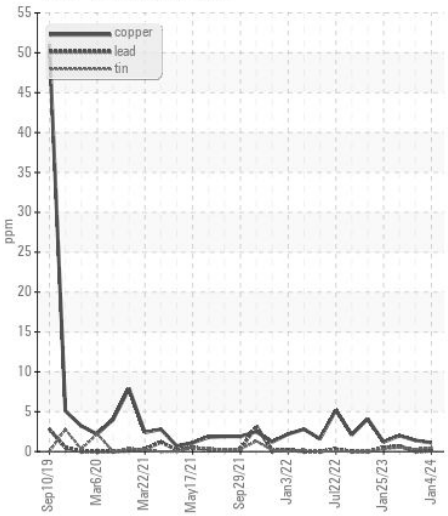
Aluminum (ppm)



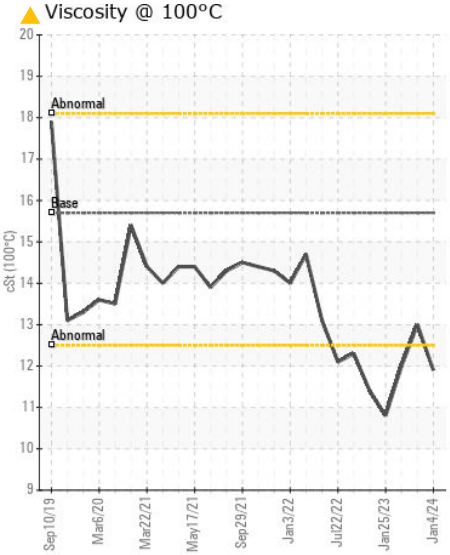
Ferrous Alloys



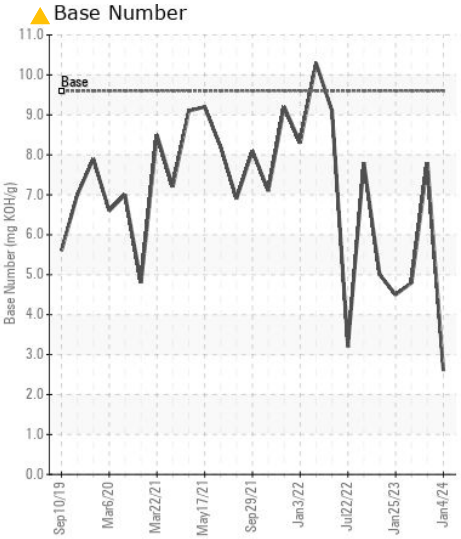
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0102311 **Recieved** : 16 Jan 2024
Lab Number : 06060825 **Diagnosed** : 18 Jan 2024
Unique Number : 10832207 **Diagnostician** : Don Baldridge
Test Package : FLEET (Additional Tests: PercentFuel)

Certificate L2367

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