CONST

PetroCard™ MORE THAN JUST FUEL.

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Area
GM Seattle Off Raod Shop
Machine Id
[GM Seattle Off Raod Shop] 24-742
Component
Diesel Engine
Fluid
SHELL 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. 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

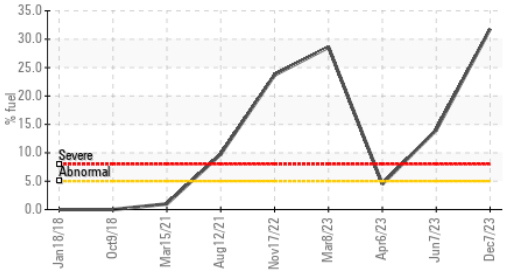
There is a high amount of fuel present in the oil.

FLUID CONDITION

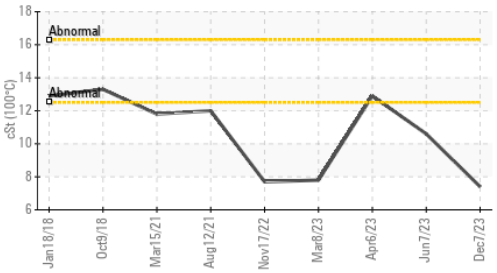
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PE0002124	PE0001395	PE0000556
Sample Date		Client Info		07 Dec 2023	07 Jun 2023	06 Apr 2023
Machine Age	hrs	Client Info		3273	2880	2719
Oil Age	hrs	Client Info		617	224	128
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	None
Sample Status				SEVERE	SEVERE	MARGINAL
Iron	ppm	ASTM D5185m	>100	11	3	2
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	2	0
Lead	ppm	ASTM D5185m	>40	4	0	0
Copper	ppm	ASTM D5185m	>330	2	<1	<1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	9	10	9
Potassium	ppm	ASTM D5185m	>20	0	0	1
Fuel	%	ASTM D3524	>5	⬢ 31.8	⬢ 14.0	▲ 4.5
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	11.2	8.9	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.1	17.4	15.4
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	>150	2	0	0
Boron	ppm	ASTM D5185m		24	69	80
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		51	66	66
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		37	62	59
Calcium	ppm	ASTM D5185m		1498	1952	1827
Phosphorus	ppm	ASTM D5185m		719	940	900
Zinc	ppm	ASTM D5185m		818	1136	1036
Sulfur	ppm	ASTM D5185m		2320	4134	2988
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.1	13.5	12.2
Base Number (BN)	mg KOH/g	ASTM D2896		4.4	6.7	6.4
Visc @ 100°C	cSt	ASTM D445		▲ 7.4	▲ 10.6	12.9

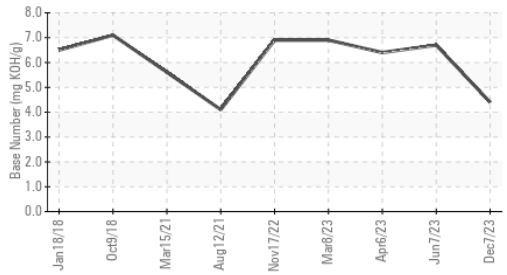
Fuel Dilution



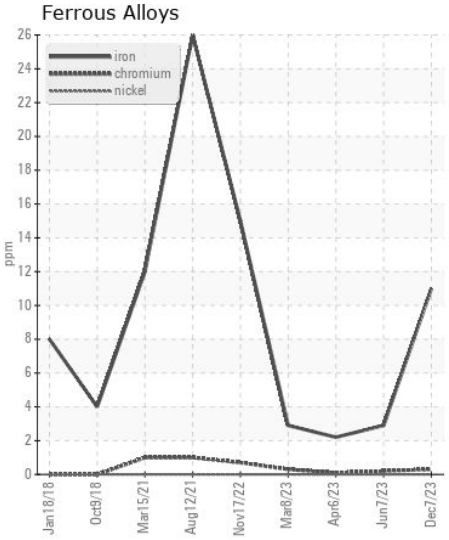
Viscosity @ 100°C



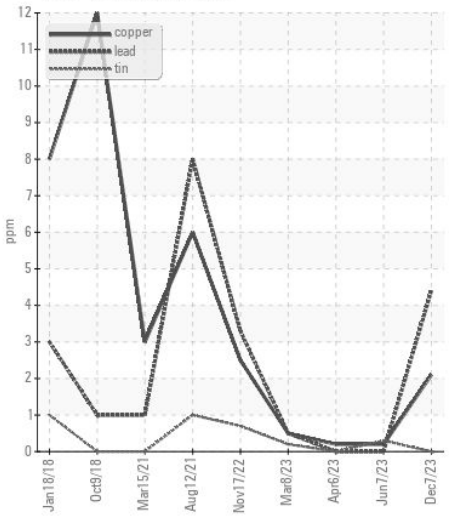
Base Number



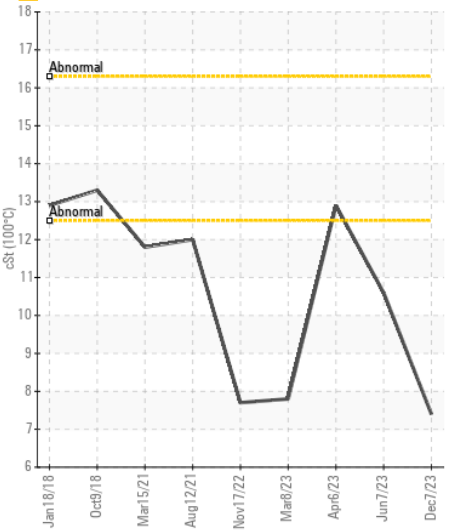
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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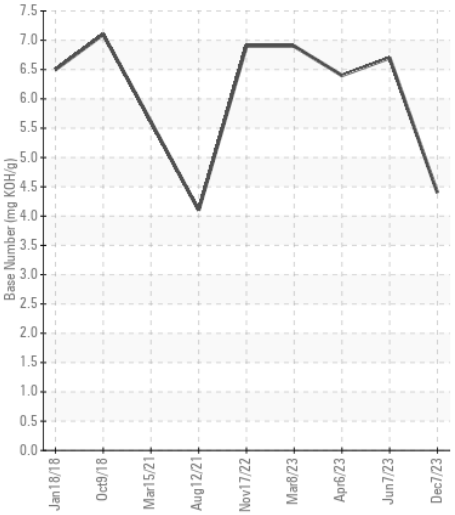

Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: PE0002124	**Recieved**	: 12 Jan 2024
Lab Number	: 06059990	**Diagnosed**	: 16 Jan 2024
Unique Number	: 10831372	**Diagnostician**	: Don Baldridge
Test Package	: CONST (Additional Tests: FT-IR, ICP, KV100, PercentFuel, SCREEN, TBN)		

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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