



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
INTERNATIONAL 8017213
Component
Diesel Engine
Fluid
VALVOLINE 15W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL0028435	IL05934631	IL05609993
Sample Date		Client Info		24 Jan 2024	28 Jul 2023	27 Jul 2022
Machine Age	mls	Client Info		359820	324343	243322
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	N/A
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	28	25	33
Chromium	ppm	ASTM D5185m	>20	2	<1	2
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	5	5	5
Lead	ppm	ASTM D5185m	>40	10	0	8
Copper	ppm	ASTM D5185m	>330	<1	2	1
Tin	ppm	ASTM D5185m	>15	1	0	2
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

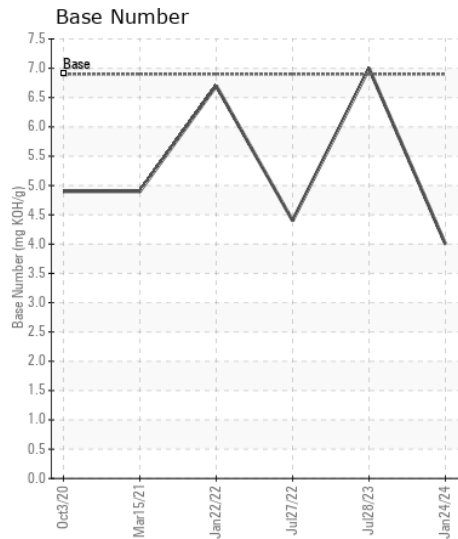
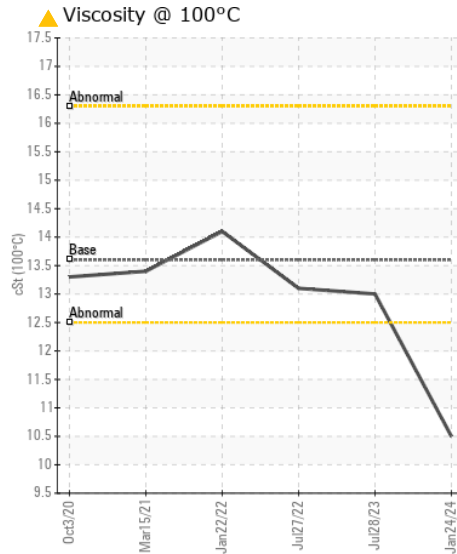
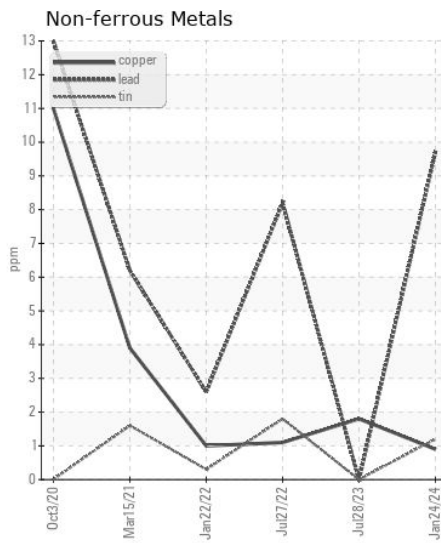
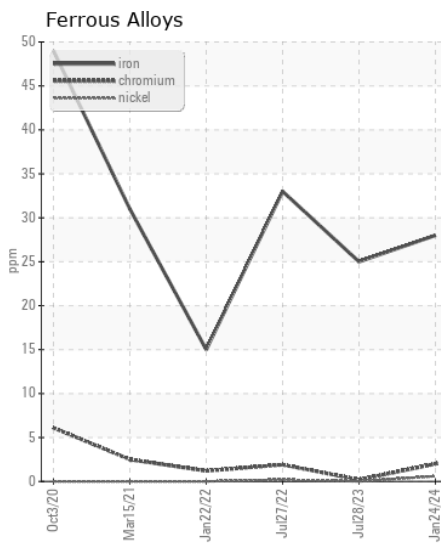
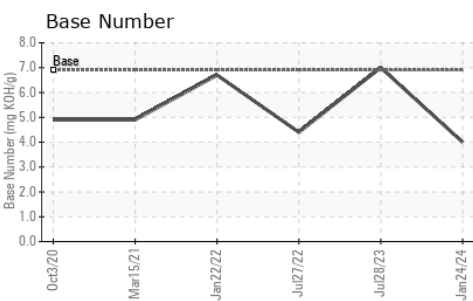
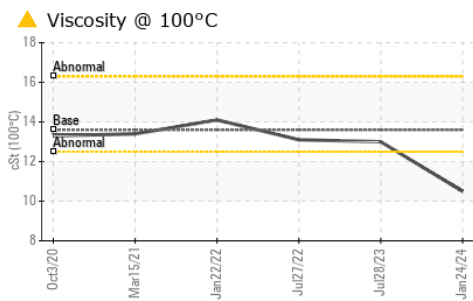
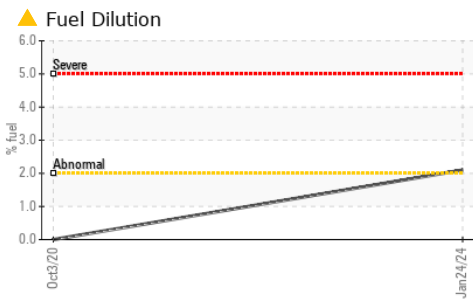
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>25	8	7	7
Potassium	ppm	ASTM D5185m	>20	3	4	2
Fuel	%	ASTM D3524	>2.0	▲ 2.1	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	10.3	9.8	14.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.9	20.6	28.8
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

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		3	3	2
Boron	ppm	ASTM D5185m	39	18	83	17
Barium	ppm	ASTM D5185m	1	0	0	0
Molybdenum	ppm	ASTM D5185m	49	98	77	64
Manganese	ppm	ASTM D5185m	1	<1	<1	<1
Magnesium	ppm	ASTM D5185m	616	586	680	752
Calcium	ppm	ASTM D5185m	1554	1226	1393	1239
Phosphorus	ppm	ASTM D5185m	899	792	854	673
Zinc	ppm	ASTM D5185m	1069	996	1058	871
Sulfur	ppm	ASTM D5185m	2624	2541	3123	2402
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.7	17.8	29.3
Base Number (BN)	mg KOH/g	ASTM D2896	6.9	4.0	7.0	4.4
Visc @ 100°C	cSt	ASTM D445	13.6	▲ 10.5	13.0	13.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL0028435 **Received** : 29 Feb 2024
Lab Number : 06104094 **Tested** : 04 Mar 2024
Unique Number : 10902324 **Diagnosed** : 04 Mar 2024 - Wes Davis
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

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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)